



Enabling Participation in Activities of Daily Living for People Living with Obesity

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KEY MESSAGES FOR HEALTHCARE PROFESSIONALS



- **Asking patients about how they view their ability to manage daily activities including personal care, mobility and interactions with the built and social environment will provide valuable information about facilitators and barriers to engagement in daily activities, including treatment recommendations.** This can help healthcare professionals (HCPs) to tailor interventions for obesity treatment and management.
- **Places and spaces where healthcare service delivery occurs can be made physically accessible, equipped and respectful for use by persons living with obesity so that patients can access the full range of primary care services, including assessment and treatment.** Consideration of the accessible features surrounding the clinic space, including access to parking, public transport

and door widths to accommodate mobility equipment, are also needed.

- **It is important to recognise that people living with obesity may have experienced stigmatising interactions within healthcare services, which may contribute to increased anxiety around attendance.** Discussing and agreeing on expectations at the outset of assessments can be helpful in improving individual comfort within the healthcare environment.
- **Appropriate equipment should be made available with recognition of structural dimensions, composition and safe working load.** Attendance can be affected by these challenges and consideration should be given in relation to rescheduling or an alternative virtual appointment.

KEY MESSAGES FOR HEALTHCARE PROFESSIONALS - Continued

- **Injury prevention, which includes falls risk reduction, is possible via the inclusion of rehabilitation to improve postural control, balance and lower extremity strength.** The Falls Efficacy Scale¹ is a psychometrically sound measure that determines an individual's concern about their risk of falling while performing activities of daily living (ADL) that involve walking or moving about.
- **Patients who report significant challenges with participation in ADL living may benefit from a referral for occupational therapy and/or physiotherapy.**
- **Try to identify patient-specific barriers to ADL participation, including musculoskeletal pain, falls history/balance impairment, sleep or cardiorespiratory dysregulation, bowel/bladder dysfunction, reduced exercise tolerance and social/environmental challenges to determine appropriate referral pathways.**
- **HCPs should look at the integrity of the patients' skin and condition of any wounds in order to identify any areas of concern, such as pressure points, skin breakdown or signs of infection².** HCPs should determine if lymphoedema-like swelling is present and discuss referral to an appropriate service for compression therapy, including made-to-measure flat-knit garments³. Lymphoedema-like swelling is associated with reduced mobility, physical activity levels and poorer physical function in people living with obesity with a body mass index > 40 kg/m²⁴. This can have an impact on functional mobility and on a person's ability to manage personal and domestic ADL⁵.
- **HCPs should ask patients about their ability to manage domestic ADL, i.e., laundry, groceries, etc., and make appropriate referral.**

RECOMMENDATIONS



1. We recommend that healthcare professionals (HCPs) ask patients living with obesity if they have concerns about managing self-care activities, such as bathing, getting dressed, bowel and/or bladder management, skin and/or wound care, foot care (Level 3, Grade C)⁶.
2. We recommend that HCPs assess falls risk in people living with obesity as this could interfere with their ability and interest in participating in physical activity (Level 3, Grade C)⁷.

KEY MESSAGES FOR PEOPLE LIVING WITH OBESITY



- **The restricted range of motion, balance, mobility, and levels of pain that some individuals living with obesity experience can impact the ability to complete self-care activities, such as bathing, getting dressed, bowel and/or bladder management, skin and/or wound care and foot care, grocery shopping and meal preparation.** Issues in this area may require adaptation of self-care activities and/or the use of assistive devices, such as dressing aids, a long-handled reacher, long-handled sponges, bath benches, grab bars and mobility aids⁶.
- **Some individuals living with obesity experience issues with mobility and are at risk for slips, trips and/or falls.** This could interfere with the ability and interest in participating in physical activity. Be sure to let your healthcare professional (HCP) know if you have had a fall or are fearful of falling as you go about your day-to-day activities⁷. Obesity is linked to other barriers too, such as pain, trouble sleeping or breathing, bowel and bladder continence, being comfortable and feeling safe when active, physical challenges at home and in personal relationships. Discussing these with your HCP can help them support you and gain access to specialist services as needed.
- **Obesity is also linked with an increased risk of skin issues and lower limb swelling that can result in redness, blisters, rashes, and open wounds that are resistant to healing.** Individuals with obesity should routinely monitor their skin and condition of any wounds to identify any areas of concern, such as pressure points, skin breakdown or signs of infection. Assessing skin integrity both pre- and post-weight loss is important. Utilising a mirror may help with viewing areas that are difficult to access. Particular attention should be paid to areas of excess skin folds post-weight loss². People living with obesity and lymphoedema-like swelling should discuss management strategies or referral to specialist services.

- **Your HCPs' offices and clinical care spaces should be physically accessible and equipped so that all patients, including those living with obesity, can access the full range of primary care services, including assessment and treatment.** Let your HCP know if there are barriers that prevent you from fully participating in and accessing care. This includes access to parking or public transport, elevators,

stairs, seating, doorways, washroom accessibility, etc. Advocate to have barriers addressed and spaces modified.

- **Consideration should be given to your needs and abilities to manage domestic activities of daily living, i.e., laundry, groceries, etc., and seek referral if necessary.**

Introduction

Patients in treatment for obesity frequently experience challenges participating in activities of daily living (ADL), which include the types of activities required for successful management and treatment of obesity, such as physical movement and meal preparation. The ability to be able to take care of oneself (including bathing, dressing, and accessing healthcare services) are also necessary to engage in treatment for obesity. This chapter provides an overview of the elements of body functions and structures, personal and environmental factors, using the best evidence available to illustrate how they influence participation in treatment and management of obesity.

The purpose of this chapter is to provide healthcare professionals (HCPs) and people living with obesity with recommendations that will help them to identify factors that may need to be addressed for participation in ADL to promote health and wellbeing as well as to participate in obesity management activities. It is our intention that work in this area will continue and more evidence will be generated that contributes to improving participation in everyday activities. It is hoped that HCPs will consider addressing the functional consequences of obesity and the environmental and social barriers that contribute to the disability experienced by some individuals in treatment for obesity.

Why consideration of ADL is important

Obesity is a complex chronic disease that may be experienced as a disability as a result of restricted participation or activity limitations caused by factors in the built and social environments, personal factors or dysfunction of body functions and structures. Patients living with obesity are experts in knowing what it is like to navigate their day-to-day activities. However, unless the patient is specifically asked about managing ADL, HCPs are often unaware of the challenges experienced by people living with obesity; therefore, they are not addressed and may be barriers to obesity management.

Being satisfied with the ability to participate in ADL is associated with health-related quality of life by reducing disability as well as supporting people living with obesity to manage at home and in their communities. Meeting these objectives will contribute to the overall health and wellbeing of individual patients by developing the ability and providing opportunities for participation in physical activity, engagement in meaningful activity and in social interactions.

Some challenges experienced by patients living with obesity will require services and supports available through multi-disciplinary teams, local primary care teams and/or disability services. This might include provision of and/or advice about assistive devices and compression therapy, advice about home adaptations and where to apply for funding and accessible parking.

What is the impact of obesity on performance of ADL?

Obesity is associated with more time spent in self-care activities, indicating that patients may need more time to complete ADL, including bathing, getting dressed and moving from place to place. It has been reported that people with obesity spend almost triple the amount of time doing daily activities (dressing, bathing, attending medical appointments, meal preparation) than typically reported in the same age groups in persons without obesity, leaving less time for work, rest and leisure activities⁶. Having a body mass index (BMI) > 35 kg/m² is associated with increased odds of impairment in ADL (i.e., getting in/out of bed, dressing, bathing, eating)^{6,8}. Some people with obesity experience limitations in being able to reach areas of their body to perform activities related to personal hygiene⁹.

Mobility impairment

BMI is not always an independent predictor of mobility impairment. Muscle strength, assessed using bilateral hand grip strength measures taken with a dynamometer, has been found to be the best predictor of mobility disability¹⁰. While not ideal, an alternative to measuring lower extremity and grip strength by dynamometer in primary care, is to ask a patient if they have difficulty climbing one flight of stairs or walking 400 metres on a flat surface in 15 minutes without sitting to rest¹⁰⁻¹².

Although it may seem logical to assume that body shape or adiposity distribution (central vs. lower body) would have an impact on mobility, one study to date reports no association to lower extremity function or disability¹³.

Risk for falls

The risk for slips, trips and falls increases in all classes of obesity, with an increased risk for injurious falls in adults who have who have a BMI > 35 kg/m² ¹⁴⁻¹⁷.

HCPs should assess for falls risk. The Falls Efficacy Scale (FES) is a psychometrically sound measure that determines an individual's concern about their risk of falling while performing ADL¹. While the FES has primarily been used in populations of older adults, it can serve as a useful guide to ask practical questions and conduct a gross assessment of a patient's self-efficacy with regard to falls and fall prevention. For patients with BMI > 40 kg/m² who are in treatment for obesity and are losing weight, include balance training to enhance the improvement in trunk sway and balance maintenance¹⁸.

BMI >40 kg/m² is associated with decreased balance in adults as measured by time of balance maintenance and postural sway at the trunk during one leg stance on a movable platform¹⁸. Specific balance training incorporated into a three-week multi-disciplinary body-weight-reduction programme significantly improved balance and reduced trunk sway more than body weight reduction alone¹⁸.

Falls risk may be improved with obesity management. Significant weight loss has been shown to improve postural stability in a small sample size of adult men and the improvement was directly related to the amount of weight lost (average weight lost 12.3 kg after a diet intervention and 71.3 kg post-surgical intervention)¹⁹.

Skin integrity

Obesity impacts micro- and macro-circulation, lymphatic, collagen and skin barrier function, as well as wound healing²⁰. This may explain the increased prevalence of skin integrity problems, including cellulitis, in people living with obesity²¹.

Skin problems due to moisture and friction in skin folds, chronic lower limb swelling and difficulty with reaching these areas are commonplace. Specific skin issues include dryness, itchiness, broken skin, redness and rashes². The most commonly reported body sites for skin problems are under the breasts, limbs, groin, abdomen and thighs, all of which are areas where there may be a greater chance of skin folds or skin-to-skin contact¹. The presence of obesity-related chronic lymphoedema-like swelling is also associated with poorer levels of physical function, increasing the barriers to engagement for people living with obesity⁴.

Pre-weight loss: Consider the impact of abdominal and limb adiposity in relation to the disruption of lymphatic drainage, impact on healing and the challenge of accessing areas where skin problems may develop. Hypovascularity and barriers to movement and repositioning may increase the risk of pressure ulcers or pressure-related injuries²².

Post-weight loss: Excess skin folds can provide moist areas for micro-organisms to develop, which may lead to infection and tissue

breakdown. Skin-to-skin friction may also cause ulceration and its impact should be discussed and appropriate referral made²².

Commonly reported risk factors for skin problems are:

- Hyperhidrosis (excessive sweating) and excess moisture in skin folds, which can contribute to intertrigo (inflammation caused by skin-to-skin friction) and heat rash².
- Limited range of motion and the weight of skin folds, which can make it hard to clean all areas of the body and can contribute to the development of pressure injuries⁹.
- Malnutrition, which can impact skin healing⁹.
- Reaching areas of the body can be difficult for people with obesity⁹.

Strategies for managing improved skin quality in people with obesity

- Keep skin clean and dry throughout the day. This may require washing the skin and changing clothes multiple times per day to decrease moisture⁹.
- Use a soft cloth (cotton) for absorbing excess moisture, including in the skin folds, to help minimise skin irritation⁹.
- Avoid excessive drying and rubbing of the skin²³.
- Reduce swelling through appropriate compression therapy³.
- Provide aids to support individual personal care needs.

HCPs should address skin care as part of routine care with patients with obesity. As with many clinical inquiries, this will need to be approached with care as patients with obesity may feel uncomfortable discussing skin problems because of fear or embarrassment². Refer patient to a tissue viability nurse, dermatology service or public health nurse as appropriate if a skin issue is not improving or a wound is not healing. Cellulitis is a common unilateral bacterial skin infection. Symptoms include swelling, heat, pain and expanding redness^{24,25}. Untreated cellulitis is potentially serious and where suspected, referral to a GP should be immediate to ensure antibiotic therapy can begin as soon as possible.

Interventions for promoting independence with ADL

Ask patients what time of day is best for them to attend appointments and work with patients to integrate activities related to obesity treatment into their daily routine, allowing adequate time. Encourage use of energy conservation strategies.

Energy management and balancing activities, including the use of assistive devices for self-care activities, pacing, planning, prioritising, positioning for self-care, meal preparation and household tasks can help people to manage their daily activities through the day and week⁶. Examples include sitting for meal preparation, using a bath seat or dressing aids, planning meals, re-organising the meal preparation area to promote accessibility of cooking utensils, and food and meal planning to manage energy needed for daily cooking. Using energy management strategies for some daily self-care activities can help to reserve energy for people to be able to do other daily activities, such as physical activity, grocery shopping, attending medical appointments or social and leisure activities. In order for patients to manage energy levels for optimising obesity care plans, such as meal preparation and physical activity, energy conservation strategies should be considered when prescribing physical activity or therapeutic exercises as part of treatment plans.

The use of assistive devices, such as a long-handled reacher, dressing sticks, shoehorns, sock aids, bath sponges and bath seats, address challenges with self-care associated with decreased range of motion, strength, pain, and balance, and can reduce injuries associated with falls, strains and sprains.

Strategies to improve access and engagement in healthcare infrastructure

There are several recommendations and opinions available that suggest ways in which to make a healthcare environment, such as a primary care setting, accessible, comfortable and respectful for patients with body sizes and shapes associated with obesity. Suggestions to modify the built and social environments, along with making sure all medical supplies and equipment meet the needs of patients with obesity and all body sizes, are based on knowledge about how people interact with places, spaces, and objects in conjunction with patients' opinions about what would make clinical visits more effective and comfortable. Empirical research is not necessary to identify such strategies. Research into the effect of such interventions has not yet been published.

To this end, the following recommendations are made to promote access to places and spaces where primary care takes place. The checklist (Table 1) is intended to guide the assessment of a healthcare setting, such as a clinic space. To use this checklist, walk through your clinical space while considering the interactions your patients may have with the environment throughout their visit.

Gaps in our knowledge: Questions for future research

There are significant gaps in knowledge about what it is like to live with obesity in the context of participating in day-to-day activities, including self-care, leisure, and life roles. Even less is known about the effectiveness of interventions that target known barriers in the built and social environments, including weight bias among HCPs, employers and educators, and adaptations to spaces and places

where people live, work and play. Much of the existing research involves small convenience samples and individual case studies. The development and evaluation of interventions that address key elements that contribute to participation in everyday life roles is needed; these should focus on body functions and structures, ADL, personal factors (including gender, age, and sex) and environmental factors, including the built and social environments. A better understanding of the factors that influence function, performance and satisfaction in everyday living will enhance the ability of primary healthcare teams to personalise interventions using multi-dimensional and interprofessional perspectives.

Tips on when to refer a patient for occupational therapy

Occupational therapists promote health and wellbeing for people with obesity by facilitating engagement in the occupations of everyday life. Consider referring your patient to an occupational therapist through a specialty clinic, primary care, out-patient services, or private practice (you can find an occupational therapist in Ireland at <https://www.aoti.ie/ot-directory>).

Referrals for occupational therapy may be indicated for a person living with obesity who presents with any of the challenges listed in Table 2. The skills an occupational therapist will use are listed in each category. Use this guide to determine when you may consider referring a person with obesity to an occupational therapist.

Tips on when to refer a patient for physiotherapy

Physiotherapists can help people living with obesity to manage functional challenges. Use this guide to determine when to consider referring your patient for physiotherapy. Physiotherapy may be accessed in a specialty clinic, home care, primary care, outpatient services and in private practice (you can find a physiotherapist through the Irish Society of Chartered Physiotherapists at <https://www.iscp.ie/find-a-physio>). Physiotherapy referral may be indicated for an individual with obesity presenting with any of the challenges listed in Table 3. Skills that a physiotherapist may employ are listed in each category.

Table 1: **Assessment of Clinical Space Checklist** (adapted from²⁶)

Type of space	Considerations
Waiting Areas	
Reading material, health promotion posters and artwork	<ul style="list-style-type: none"> ✓ Avoid images and content that could stigmatise, exclude and/or discriminate against individuals with obesity ✓ Display posters signposting advocacy groups e.g., Irish Coalition for People Living with Obesity
Seating (chairs, stools and sofas)	<ul style="list-style-type: none"> ✓ Adequate weight capacity (minimum 136 kg) ✓ Chairs with and without armrests ✓ 15cm–20cm spacing between chairs ✓ (Arm) chairs width greater than 51 cm ✓ Chair seat depth greater than 46 cm ✓ Firm cushions (with pressure relief integrated preferable) ✓ Seat height minimum 41cm ✓ Mix of chairs so that there is not a perceived section for people with obesity that is separate from other seating ✓ Availability of fresh water and adequate ventilation to help with recovery from physical activity in accessing the clinic
Washroom	
Toilet	<ul style="list-style-type: none"> ✓ Minimum weight capacity of 136kg ✓ Floor mounted ✓ Ensure enough room surrounding toilet to allow for sitting or straddling of toilet ✓ Professionally installed, wall-mounted grab bars nearby to support getting on and off the toilet ✓ Split (U-shaped) toilet seat ✓ Consider placement of toilet paper roll within reach (i.e., not behind toilet)
Specimen container	<ul style="list-style-type: none"> ✓ Urine specimen container with option to use wide-neck sterile container or sterile bowl
Examination rooms	
Weigh scale	<ul style="list-style-type: none"> ✓ Minimum weight capacity of 227 kg ✓ Wide standing surface ✓ Supportive handlebars on scale or professionally installed wall-mounted grab bars close by ✓ Built-in ramp for wheelchair or individuals with mobility difficulties ✓ Seating and long-handled shoehorn nearby ✓ Located in an area that provides privacy
Exam table	<ul style="list-style-type: none"> ✓ Minimum weight capacity 227kg ✓ Firm cushioned surface ✓ Wide enough to support various body shapes ✓ Consider having split legs to accommodate electronic supported access to the lower limbs for lymphoedema and pressure ulcers assessments and treatments ✓ Positioned close to structures, such as wall-mounted grab bars ✓ Electric bed with adjustable settings, including back rest ✓ Step stool (see below)
Step stool	<ul style="list-style-type: none"> ✓ Minimum weight capacity 227kg ✓ Wide surface ✓ Equipped with supportive handlebar(s)
Clinic equipment	
Gowns	<ul style="list-style-type: none"> ✓ Have a range of large sizes available.
Blood pressure cuffs	<ul style="list-style-type: none"> ✓ Large and extra-large cuffs readily available
Tape measure	<ul style="list-style-type: none"> ✓ Appropriate length for waist and hip circumference measurement ✓ Available up to 304cm long
Needles	<ul style="list-style-type: none"> ✓ 5cm safety needles available for intra-muscular injection
Speculum	<ul style="list-style-type: none"> ✓ Large or extra-large speculum ✓ Available with 17.8cm blade
Phlebotomy	<ul style="list-style-type: none"> ✓ Longer tourniquet up to 81cm long
Onward referral pathways	<ul style="list-style-type: none"> ✓ Additional considerations for in-patient hospital stays such as commodes, hospital beds, hoists, seating, shower chairs, mobility aids, TEDS, SCDs should also be assessed and provided for patients as indicated

Table 2: **When to Refer to an Occupational Therapist** (adapted from²⁷)

Challenge category	Types of interventions provided by an occupational therapist
Obesity-related comorbidities that affect ADLs	<ul style="list-style-type: none"> • Psychosocial, biomechanical and compensatory interventions to manage the functional impact of potential co-morbidities, e.g., energy conservation and pacing if you have fatigue/cardiovascular concerns, lower limb dressing if impacted by osteoarthritis, etc.
Mental health	<ul style="list-style-type: none"> • Apply psychosocial interventions to address the functional impact of mental health disorders on emotions, thoughts and behaviours • Support positive body image • Facilitate social engagement through enhancing social skills or participating in leisure activities • Enable clients to optimise time use through developing routines
Energy management	<ul style="list-style-type: none"> • Advise clients on how to manage limited energy (e.g., self-care, leisure, shopping, work) • Promote energy management for physical activity
Education and skill building	<p>Collaborate with and coach clients to build skills in the areas of:</p> <ul style="list-style-type: none"> • Meal planning and food preparation • Occupational and life balance • Occupational engagement • Physical activity • Skin-care management • Sleep hygiene and positioning • Stress management • Time management and self care
Environment	<ul style="list-style-type: none"> • Identify and address home accessibility barriers • Identify and address barriers to accessing community resources • Adapt the task or environment to facilitate occupational engagement (e.g., positioning, assistive devices, space organisation)
Equipment	<ul style="list-style-type: none"> • Assess for and recommend assistive devices (e.g., self-care aids, mobility aids) • Provide education on appropriate footwear
Consultation and advocacy	<ul style="list-style-type: none"> • Consult with and coordinate referrals to other HCPs or specialists • Advocate for support funding and purchase of assistive devices, participation in community programmes, access to community resources

Table 3: **When to Refer to a Physiotherapist** (adapted from²⁸)

Challenge category	Types of interventions provided by a physiotherapist
Challenges with movement, pain or daily function	<ul style="list-style-type: none"> • Assess, diagnose and manage musculoskeletal issues (e.g., pain, injury, limitations in range of motion, endurance, strength) • Analyse and manage problems with functional mobility (e.g., walking, moving in bed, getting out of a chair, reaching) • Assess physical ability to participate in physical activity • Address functional issues following significant changes in body weight (e.g., loss of muscle mass) • Assess balance and address falls risk • Prevent further or future health issues (e.g., assess efficiency of movement, mobility to minimise stress on joints)
Obesity-related comorbidities that affect daily function	<ul style="list-style-type: none"> • Assess, manage and educate on associated conditions (e.g., cardiorespiratory disease, diabetic neuropathy, osteoarthritis/musculoskeletal pain, obstructive sleep apnea, urinary incontinence*, skin conditions/lymphedema*) <p>*Indicates requires specialised training</p>
Energy management	<ul style="list-style-type: none"> • Provide education on maximising limited energy for ADL through pacing, positions of ease and goal setting/activity prioritisation as individually appropriate • Promote managing energy for ADL, movement or structured activity • Evaluate recent changes in functional capacity or daily abilities related to energy management
Posture, balance and positioning issues	<ul style="list-style-type: none"> • Assess posture and provide posture education/correction/exercises • Evaluate concerns with positioning (e.g., pain, sleep apnea)
Activity counselling needs	<ul style="list-style-type: none"> • Counsel on functional mobility limitations and activity barriers, beliefs around activity and root cause(s) of inactivity • Address fear regarding movement and being active (e.g., pain with movement or fear of falling) • Focus on collaborative treatment selection and education in relation to therapeutic exercise and physical activity • Gauge current knowledge and as appropriate provide education on health benefits of activity and risk associated with sedentary lifestyle
Equipment issues	<ul style="list-style-type: none"> • Provide education about equipment at home and/or correct use of home equipment • Assess and analyse gait and footwear and educate on appropriate footwear or need for orthotic assessment • Assess need for and prescribe assistive devices (e.g., mobility aids, abdominal support)
Access to community resources	<ul style="list-style-type: none"> • Consult with and determine need to refer to other HCPs or specialists to address physical and functional concerns • Identify physical home environment concerns • Identify physical barriers and social or environmental concerns to accessing community resources (e.g., accessibility of equipment, finding appropriate facility or programming, environmental/social safety)

Activities of Daily Living: ADL; HCPs: Healthcare Professionals

The Enabling Participation in Activities of Daily Living for People Living with Obesity chapter is adapted from the Canadian Adult Obesity Clinical Practice Guidelines (the "Guidelines"), which Obesity Canada owns and from whom we have a license. ASOI adapted the Guidelines having regard for any relevant context affecting the Island of Ireland using the [ADAPTE Tool](#).

ASOI acknowledges that Obesity Canada and the authors of the Guidelines have not reviewed the Enabling Participation in Activities of Daily Living for People Living with Obesity chapter and bear no responsibility for changes made to such chapter, or how the adapted chapter is presented or disseminated. As Obesity Canada and the authors of the original Guidelines have not reviewed the Participation in Activities of Daily Living for People Living with Obesity chapter, such parties, according to their policy, disclaim any association with such adapted Materials. The original Guidelines may be viewed in English at: www.obesitycanada.ca/guidelines.

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