



Qualification  
Guidance  
Syllabus

# Level 4 Certificate In Physical Activity and Weight Management for Obese and Diabetic Clients

Qualification  
Accreditation Number:  
**601/4932/2**  
Version AIQ005032

**Active iQ**

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# Active IQ Level 4 Certificate In Physical Activity and Weight Management for Obese and Diabetic Clients

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## Introduction

The Active IQ Certificate in Physical Activity and Nutrition Strategies for Obesity and Diabetes Management is at level 4 on the Regulated Qualifications Framework.

**Guided learning hours:** 98      **Total Qualification Time:** 160      **Credit:** 16

Minimum credit to be achieved at or above the level of the qualification	16
Requirements other than the award of credit which needs to be met before the qualification is awarded:	None
Exemptions:	None

## Entry Requirements

- Learners must hold a Level 3 Diploma in Exercise Referral or equivalent

## Qualification Outline

### Target Learners:

- Experienced Instructors wishing to further their career in the health and fitness sector as a specialist instructor who can address the needs of clients with obesity and/or diabetes.

### Aim:

- To train learners to a professionally competent level, enabling them to plan, conduct and review programmes to address the needs of clients with obesity and/or diabetes
- To train learners to a professionally competent level, enabling them to support clients to change their eating behaviours to aid in the management of obesity and/or diabetes

### Objectives:

For the learner:

- To develop an understanding of the prevalence and classification of obesity and diabetes
- To be able to determine obesity-related health risk
- To understand the contributing factors that lead to the development of obesity and diabetes
- To apply appropriate training approaches to plan and design physical activity and exercise programmes for clients with obesity and/or diabetes.
- To understand how medications, psychological/sociological factors and co-morbidities affect an obese and/or diabetic client's ability to exercise safely and effectively
- To be able to support clients to adopt healthier eating behaviours as part of a programme to manage obesity and/or diabetes

### Progression:

This qualification provides progression to further specialist qualifications at Level 4.

## Links to National Occupational Standards

This qualification has direct links to the NOS in Instructing Physical Activity and Exercise and – D513 Design, agree and adapt a physical activity programme for adults with obesity and/or diabetes mellitus

## Occupational competence statements for tutoring, assessing and internal verifying

This section outlines the requirements for tutoring, assessing and internally verifying Active IQ qualifications.

### All Tutors, Assessors and Verifiers must:

- Possess a discipline specific qualification equivalent to the qualification being taught
- Have relevant industry experience
- Demonstrate active involvement in a process of industry relevant Continued Professional Development during the last two years (this may be discipline/ context specific or relevant to tutoring assessing or quality assurance)

### Tutors

Tutors must hold, or be working towards a teaching qualification.

The following are acceptable:

- Level 3 Award in Preparing to Teach in the Lifelong Learning Sector (PTTLS)
- Level 3 Award in Education and Training
- Level 4 Award in Preparing to Teach in the Lifelong Learning Sector (PTTLS)
- Level 4 Certificate in Teaching in the Lifelong Learning Sector (CTTLS)
- Level 4 Certificate in Education and Training
- Level 5 Diploma in Teaching in the Lifelong Learning Sector (DTTLS)
- Level 5 Diploma in Education and Training
- Certificate in Education

### Assessor

Assessors must hold or be working towards any of the following:

- Level 3 Award in Understanding the Principles and Practices of Assessment or
- Level 3 Award in Assessing Vocationally Related Achievement or
- Level 3 Award in Assessing Competence in the Work Environment or
- Level 3 Certificate in Assessing Vocational Achievement, or
- A1 (previously D32, D33)

### Internal Verifier

Internal verifiers must hold or be working towards any of the following:

- Level 4 Award in Understanding the Internal Quality Assurance of Assessment Processes and Practice or
- Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practice or
- Level 4 Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practice or
- V1 (previously D34)

All new assessors and quality assurance staff must be given a clear action plan for achieving the appropriate qualification(s) and should be countersigned by an appropriately qualified individual until the qualification(s) are achieved.

## **This section outlines the specific requirements for tutoring, assessing and internally verifying this qualification**

- Tutors and assessors should hold relevant technical qualifications at the level of this qualification or above and have experience of working with clients with the medical conditions covered by the qualification.

### **Additional requirements for Centre approval at Level 4**

Tutors and assessors should hold relevant technical qualifications at the level of this qualification or above and have experience of working with clients with the medical conditions covered by the qualification.

#### **Tutors**

Tutoring teams for Level 4 qualifications should include a clinical specialist in the area being taught and an exercise specialist with expertise and experience in the area being taught. It is also recommended that a physiotherapist is involved in the delivery of the course.

The tutor requirements can be met by a whole team rather than one individual

All clinician lecturers who have no previous education qualification will have to commit to gaining these with an agreed conversion period.

#### **Assessors**

Assessing teams for Level 4 qualifications should include appropriately qualified assessors with experience of the needs and competencies of the specialist area.

Assessors/Tutor who have taught the course should not assess their own learners.

#### **Internal Verifiers**

Internal Verification teams for Level 4 qualifications should include appropriately qualified internal verifiers with experience in the needs and competencies of the specialist area.

#### **Use of training providers own resources and manuals**

The training organisation must provide a copy of their course manual mapped against the Active IQ qualification specification.

In addition formal letters of support for the technical content of the course should be provided from at least **two** clinical medical specialists with expertise in the field which is covered by the qualification (one of which must be a physiotherapist with an expertise in clinical exercise). Preferably the specialists will be of national or international standing and acting in an advisory capacity to and with the knowledge and support of the major national charities/associations linked to the disease category.

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### Qualification Structure

#### Mandatory Unit

Learners must complete the three mandatory units (16 credits)

Unit	Unit title	Level	Credits	Unit accreditation number
1	Prevalence and classification of obesity, metabolic syndrome and diabetes	4	4	T/506/8007
2	Development and pathophysiology of obesity and diabetes	4	5	M/506/8006
3	Planning and delivering physical activity and nutrition strategies for obesity and diabetes management	4	7	K/506/8005

Successful achievement of all three units (16 credits) must be achieved for the full qualification.

<b>Learning outcomes</b> <b>The learner will:</b>	<b>Assessment criteria</b> <b>The learner can:</b>
1. Understand the classification and prevalence of obesity	1.1 Define obesity 1.2 Identify obesity levels using BMI and waist circumference 1.3 Identify methods of determining body composition 1.4 Describe the benefits and limitations of methods used to classify obesity (BMI, Waist circumference, WHR) 1.5 Summarise the prevalence and obesity trends nationally and globally
2. Understand the classification and prevalence of diabetes	2.1 Define diabetes mellitus 2.2 Describe the diagnostic criteria for type 1 and type 2 diabetes mellitus 2.3 Differentiate between type 1 and type 2 diabetes mellitus 2.4 Summarise the prevalence of diabetes and its subsequent trends nationally and globally
3. Understand the classification of metabolic syndrome and how it relates to obesity and diabetes	3.1 Define metabolic syndrome 3.2 Explain the key risk factors associated with metabolic syndrome 3.3 Compare the shared traits found in metabolic syndrome with obesity and diabetes
4. Know current strategies for the management of obesity and diabetes	4.1 Identify credible sources of information about the management of obesity and diabetes, to include: <ul style="list-style-type: none"> <li>• National agencies</li> <li>• Other organisations</li> <li>• Literature</li> </ul> 4.2 Summarise the characteristics of medications used for the treatment of obesity, metabolic syndrome and diabetes, for example: <ul style="list-style-type: none"> <li>• Effectiveness (e.g. those licensed for use in the UK or not)</li> <li>• Side effects</li> </ul> 4.3 Describe current national and local strategies for treatment and prevention of obesity and diabetes (e.g. NICE guidance NSF for diabetes and care pathways in UK) 4.4 Evaluate current obesity and diabetes treatment strategies outlining their advantages and disadvantages
5. Be able to determine obesity-related health risk	5.1 Risk stratify clients on the basis of information provided about their weight and metabolic status
Assessment	Worksheet

<b>Learning outcomes</b> <b>The learner will:</b>	<b>Assessment criteria</b> <b>The learner can:</b>
1. Understand factors that contribute to the development of obesity and/or diabetes	1.1 Identify the key contributing factors in the development of obesity 1.2 Evaluate the significance of each factor in the overall cause of obesity, to include: <ul style="list-style-type: none"> <li>• Genetics</li> <li>• Diet</li> <li>• Hormones</li> </ul> 1.3 Describe the causes of type 1 diabetes 1.4 Evaluate the contribution of each key factor in the development of type 2 diabetes, to include: <ul style="list-style-type: none"> <li>• Genetics</li> <li>• Lifestyle</li> <li>• Obesity</li> </ul>
2. Understand the dietary variables that influence the development of obesity and diabetes	2.1 Identify the primary dietary factors that influence the development of obesity 2.2 Define energy balance 2.3 Analyse the first law of thermodynamics and how it has impacted upon current weight management advice 2.4 Explain appetite mechanisms that drive hunger and stimulate satiety, to include: <ul style="list-style-type: none"> <li>• Leptin</li> <li>• Ghrelin</li> <li>• Cholecystokinin</li> <li>• Peptide YY</li> <li>• Oxyntomodulin</li> </ul> 2.5 Evaluate the influence that macronutrients have in shifting the body towards fat storage 2.6 Describe the influence of food processing on modern eating habits
3. Understand the endocrine system changes that occur in clients with obesity and diabetes	3.1 Identify the physiological functions of specific hormones, to include: <ul style="list-style-type: none"> <li>• Insulin</li> <li>• Testosterone</li> <li>• Oestrogen</li> <li>• Cortisol</li> </ul> 3.2 Explain the effect of obesity and diabetes on the hormonal regulation of blood glucose 3.3 Describe the effect of muscle contraction on GLUT4 transporters and blood glucose uptake by muscles 3.4 Describe how sex hormone levels and body composition are interrelated 3.5 Summarise the influence that chronic stress has on hormonal pathways and body composition
4. Know the health implications of obesity for clients	4.1 Identify the health complications associated with obesity, for example: <ul style="list-style-type: none"> <li>• Cardiovascular disease</li> <li>• Type 2 diabetes</li> <li>• Metabolic syndrome</li> <li>• Hypertension</li> <li>• Sleep apnoea</li> <li>• Arthritis</li> <li>• Low back pain</li> <li>• Reproductive complications</li> </ul> 4.2 Describe the impact that obesity-related health risks may have on quality of life



5. Know the health implications of diabetes	5.1 Identify the health complications associated with diabetes, to include: <ul style="list-style-type: none"><li>• Cardiovascular disease</li><li>• Retinopathy</li><li>• Neuropathy</li><li>• Nephropathy</li><li>• Foot complications</li></ul> 5.2 Describe the impact that long term complications of diabetes may have on quality of life 5.3 Explain how to manage medical complications such as hypoglycaemia that may occur during physical activity
<b>Assessment</b>	Worksheet

<b>Learning outcomes</b> <b>The learner will:</b>	<b>Assessment criteria</b> <b>The learner can:</b>
1. Understand the benefits of physical activity for clients with obesity, and/or metabolic syndrome and/or diabetes	1.1 Explain the benefits of increasing physical activity levels for clients with obesity, metabolic syndrome or diabetes, to include: <ul style="list-style-type: none"> <li>• Body fat loss</li> <li>• Improved insulin sensitivity</li> <li>• Improved glycaemic control</li> <li>• Improved cardiovascular risk</li> </ul>
2. Understand the risks of physical activity for client's with obesity, and/or metabolic syndrome and/or diabetes	2.1 Summarise the exercise risks for obese and diabetic clients 2.2 Determine suitable actions or adaptations to minimise exercise-related risks to the obese and/or diabetic client 2.3 Explain when physical activity or specific types of exercise may be contraindicated for a client with one or more of the following: <ul style="list-style-type: none"> <li>• Obesity</li> <li>• Metabolic syndrome</li> <li>• Diabetes</li> </ul>
3. Understand how to obtain relevant information and consent to design physical activity programmes for clients with obesity, and/or metabolic syndrome and/or diabetes	3.1 Describe relevant medico-legal requirements including the use of appropriate informed consent forms 3.2 Describe appropriate methods for collecting and presenting information with obese and/or diabetic clients and relevant healthcare professionals, for example: <ul style="list-style-type: none"> <li>• Questionnaire</li> <li>• Interview</li> <li>• Observation</li> <li>• Functional and physical fitness assessments</li> <li>• Reports</li> </ul> 3.3 Select appropriate information to enable ongoing programme planning, for example: <ul style="list-style-type: none"> <li>• Personal goals</li> <li>• Referral forms</li> <li>• Medical history and medication</li> <li>• Activity history and preferences</li> <li>• Social and psychological considerations</li> </ul> 3.4 Interpret the information gathered and determine any need for referral 3.5 Describe how to communicate with medical and healthcare professionals
4. Understand how to agree suitable goals for physical activity programmes with clients with obesity, and/or metabolic syndrome and/or diabetes	4.1 Determined the client's readiness to change their physical activity and eating behaviours 4.2 Explain how to use appropriate communication and behaviour change strategies to increase the client's motivation and commitment to making lifestyle changes 4.3 Agree Specific Measurable Achievable Realistic and Time bound (SMART) goals with clients with obesity, and/or metabolic syndrome and/or diabetes, for example: <ul style="list-style-type: none"> <li>• Short, medium and long term</li> <li>• Physical activity</li> <li>• Dietary changes</li> <li>• Lifestyle</li> <li>• Adherence</li> </ul>

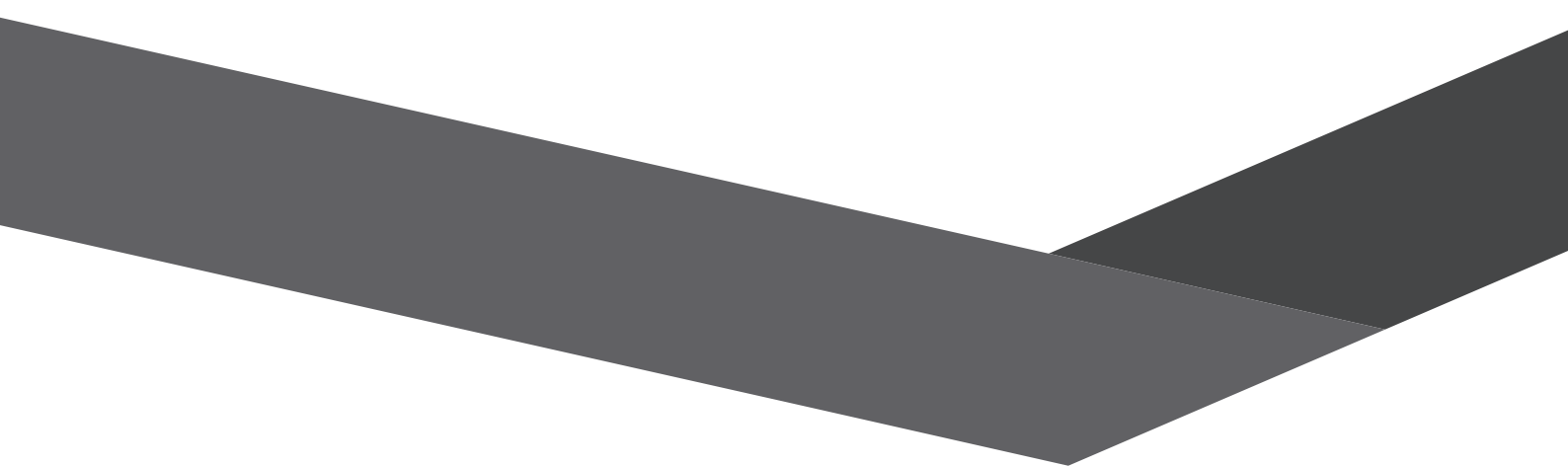
<p>5. Be able to plan, review and adapt physical activity programmes for obese and/or diabetic clients</p>	<p>5.1 Use information collected in a health and fitness assessment to design an effective exercise programme</p> <p>5.2 Explain how the exercise programme is safe and suited to the client's needs and goals</p> <p>5.3 Develop an exercise programme that takes into account current guidelines and principles of training for persons with obesity, metabolic syndrome, or diabetes</p> <p>5.4 Design a programme that includes a suitable duration, frequency, mode and intensity of exercise for the client</p> <p>5.5 Describe modifications to standard exercise techniques that take into account a client's medical condition, fitness and ability</p> <p>5.6 Provide alternative progressive or regressive exercise options as required</p> <p>5.7 Monitor client's progress against agreed goals and adapt the programme accordingly</p> <p>5.8 Provide reports for health care professionals to communicate programme outcomes as required</p> <p>5.9 Encourage clients to become self-sufficient in adhering to physical activity</p> <p>5.10 Prepare suitable risk assessments before planned sessions, to include:</p> <ul style="list-style-type: none"> <li>• Exercise environment</li> <li>• Client's ability</li> <li>• Planned exercises</li> <li>• Emergency procedures</li> </ul> <p>5.11 Describe appropriate health and safety procedures specific to client's conditions prior to an exercise session</p> <p>5.12 Explain how to assess, monitor and manage risk to clients with obesity, metabolic syndrome or diabetes throughout an exercise session</p>
<p>6. Support clients to implement and adhere to healthy eating strategies that assist weight management and improve glycaemic control</p>	<p>6.1 Interpret health and dietary assessment information</p> <p>6.2 Provide appropriate healthy eating information for clients with obesity, metabolic syndrome and/or diabetes</p> <p>6.3 Recognise when to refer a client to a registered dietitian for specialised dietary advice</p> <p>6.4 Outline a progressive approach to dietary change</p> <p>6.5 Design a support plan to encourage long term change to eating habits</p> <p>6.6 Provide clients with the skills to enable the long term self-management of healthy eating</p> <p>6.7 Provide specific information to enable clients to manage dietary and fluid intake needs around physical activity sessions</p>
<p><b>Assessment</b></p>	<p>Theoretical case study – Programme design, session plan, evaluation and modification report</p>

Active IQ

Westminster House  
The Anderson Centre  
Ermine Business Park  
Huntingdon PE29 6XY

T 01480 467 950  
F 01480 456 283  
info@activeiq.co.uk  
www.activeiq.co.uk

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