

Unit 14: Physiological Disorders

Unit code:	J/600/8968
QCF Level 3:	BTEC Nationals
Credit value:	10
Guided learning hours:	60

● Aim and purpose

This unit aims to develop learners understanding of the nature of physiological disorders. They will also be able to gain knowledge about the diagnosis and treatment of these disorders. Learners will, additionally, learn how to produce care pathways which include an understanding of strategies to support individuals with particular disorders.

● Unit introduction

Knowing and understanding the development, causes, diagnosis and treatment of common physiological disorders is essential for workers in the health and social care sectors. This unit will support learners in gaining understanding of the causes of disorders and how they are diagnosed. The unit facilitates understanding of the care pathways relevant to the disorders and the roles of practitioners involved in these care pathways. Learners will gain an insight into the coping strategies that can be used to support individuals with particular physiological disorders so that they can maintain their independence. Learners will go on to evaluate the effectiveness of these strategies.

Learners will choose two physiological disorders and investigate these throughout the unit. The unit will give learners the opportunity to gain an insight into how different physiological disorders may present themselves in individuals and the ways in which health services provide diagnosis, treatment and care for service users with these disorders. Difficulties that may occur in diagnosing diseases will be investigated and learners will be able to evaluate the contributions of a variety of care practitioners to the care pathways for the diseases.

The unit will be useful for learners preparing for a variety of careers in health and social care and the allied health professions, as they will develop an understanding of relevant needs-based care planning and support in treating the disorders and the contribution of both informal and formal carers.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the nature of physiological disorders
- 2 Know the processes involved in the diagnosis of physiological disorders
- 3 Be able to produce a care pathway for physiological disorders
- 4 Understand the strategies used to support individuals with physiological disorders.

Unit content

1 Understand the nature of physiological disorders

Physiological disorders: as appropriate, eg diabetes (either type 1 or type 2), coronary heart disease, stroke, hypertension, Parkinson's disease, Alzheimer's disease or other suitable types of dementia, motor neurone disease, multiple sclerosis, rheumatoid arthritis, osteoporosis, Crohn's disease, inflammatory bowel disease, cancer (of the breast, liver, lungs, bowel, prostate, melanoma) leukaemia, deficiency diseases

Nature of the disorder: causes, changes to the relevant physiology of the body systems as a result of the disorder, changes to overall body functions, physiological changes due to treatments for the disorder; influences on the development of the disorder, eg inherited traits, lifestyle choices, employment, diet, environmental

Signs and symptoms: observable signs of the disorders, symptoms felt and experienced by the service user with the disorder, how these are linked to the physiology of the disorders

2 Know the processes involved in the diagnosis of physiological disorders

Referral: methods, eg self-referral, professional referral, referral by a third party

Investigations: that may undertaken, eg investigations based on the signs and symptoms, investigations undertaken by the individual, carried out at a local health practice or General Practitioner (GP) surgery, carried out by a local hospital, carried out at a specialist centres

Investigations for each individual: as appropriate, eg medical history including family traits, blood tests, urine tests, radiological investigations, scans, organ function tests

Measurements: that may be undertaken, eg height, weight, Body Mass Index (BMI), peak flow, blood pressure

3 Be able to produce a care pathway for physiological disorders

Care pathway: purpose of, eg assessment of care needs, primary, secondary, tertiary care

Practitioners: those involved in the delivery of the care pathway, eg both formal and informal carers, involvement of other agencies such as meals on wheels, private care agencies and charities, eg Diabetes UK, Age Concern

Care strategies: monitoring of, eg review of care, possible changes needed to care strategy

4 Understand the strategies used to support individuals with physiological disorders

Care provision: types of, eg statutory, non-statutory (private or voluntary)

Care settings: where support can occur, eg home, GP surgery, health centre, hospital care, respite care, social care setting such as residential, nursery care or sheltered housing, educational settings

Carers: formal, eg GPs, nurses, occupational therapists, physiotherapists, care managers, social workers, pharmacists, phlebotomists, laboratory workers, chiropodists, care assistants, counsellors; informal, eg friends, family, neighbours

Care: types of, eg medication, surgery, blood transfusion, transplant, rehabilitation programmes, aids for living, complementary therapies, advice on lifestyle changes

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 explain the nature of two named physiological disorders [IE1; IE2; CT2]	M1 assess possible difficulties involved in the diagnosis of the disorders from their signs and symptoms	
P2 explain the signs and symptoms related to two named physiological disorders [IE1; IE2; CT2]		
P3 describe the investigations that are carried out to enable the diagnosis of these physiological disorders [IE1; IE2; CT2]		
P4 plan a care pathway for each physiological disorder including the roles of relevant practitioners [RL2; EP3; EP4]	M2 discuss how the practitioners and agencies involved in the care pathways work together to provide the care needed for both physiological disorders	D1 evaluate the effectiveness of health and social care practitioners and agencies working together to deliver the care pathway for one of the chosen physiological disorders
P5 explain the care strategies that can be used to support individuals with each of the physiological disorders. [TW4]	M3 discuss the care strategies that can be used to support individuals with each of the physiological disorders.	D2 evaluate the care strategies that can be used to support an individual with one of the chosen physiological disorders.

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills which are embedded in the assessment of this unit. By achieving the criteria, learners will have demonstrated effective application of the referenced elements of the skills.

Key	IE – independent enquirers	RL – reflective learners	SM – self-managers
	CT – creative thinkers	TW – team workers	EP – effective participators

Essential guidance for tutors

Delivery

This unit should be delivered by subject specialists who have a broad understanding of the nature of common physiological conditions and the care that needs to be provided for them. In order to gain maximum benefit from this unit, learners will need to be able to research two different physiological disorders that they are interested in. They may choose to research a disorder that is relevant to a family member or friend or to their work placement if the tutor agrees. If this is the case then learners will need to respect confidentiality at all times. If learners wish to include direct information from individuals with the disorder they must obtain formal consent from the service user in order to report the information.

Alternatively, tutors may provide information for this unit from a variety of sources. Case studies can be used to describe and explain the underlying physiology of disorders and diagnosis and treatment. Learners investigating relevant websites such as Diabetes UK or Asthma UK can gain a lot of information for the relevant diseases. Video material is also available covering a range of information on physiological diseases. Tutors might consider giving learners a variety of disorders to carry out initial research. Each learner can report their findings back to the class to inform their choice regarding which two disorders they will investigate for their assessment.

Tutors may wish to use professional practitioners such as nurses, physiotherapists and occupational therapists to come into class to provide information on diagnosis and current care pathways. If this is the case, learners must ensure that they reproduce in their own words any information given to them by outside speakers and not just whole group class notes. If possible, visits to care settings would support the information needed for this unit. Some learners may want to use experiences gained in work-placement settings in their evidence for this unit. Again, care must be taken to ensure confidentiality.

Most learners will benefit from selecting the more common disorders rather than a less common condition that may be difficult to research. Learners can gain all their information for this unit from secondary research sources or from a mix of primary and secondary research sources. Care must be taken to support learners in using resources and taking into account reliability and validity of sources. Credit should not be given for 'cut and pasted' work. Best practice would be to encourage learners to include a bibliography in their assignment work.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Unit introduction.
Tutor input/discussion: What do learners need to understand? How will they be assessed? Introduction to physiological diseases. What are they? Class discussion to produce a list of common physiological diseases (referring to the unit content).
Learning outcome 1 Learner research: learners are given a range of physiological disorders to research using secondary sources or a mix of both primary and secondary sources. Group research and short presentation: presentation could include some statistical data to support learners in deciding which disorders to use for their assignment.
Tutor/learner discussion: learners confirm choice of diseases for their assignment. Delivery of information relevant to Assignment 1.
Assignment 1: Physiological disorders, their nature, signs and symptoms (P1, P2, part M1)
Learning outcome 2 Tutor to use a number of strategies to enable learners to meet the requirements of investigations carried out to achieve the diagnosis of both disorders. This could include visits to health settings, outside speakers, case studies, or DVDs. Learners research.
Assignment 2: Diagnosis – how is it carried out? (P3, part M1)
Learning outcome 3 Tutor input/discussion: various care pathways that are implemented for the diseases relevant to learners. This work will include up-to-date research into current treatments available for the disorders. Discussion/learner research: into strategies that can be implemented to support individuals with the disorders. This coverage could include outside speakers from both voluntary and private agencies and visits to care settings.
Assignment 3: Care pathways and strategies for supporting the chosen disorders (P4, P5, M2, M3, D1, D2)
Unit review and assessment.

Assessment

One assignment could form the basis of assessment for this unit, with learners investigating two individuals with different physiological disorders. Evidence could be in the form of a structured report on each chosen individual, using a conventional case study format or as suggested in the programme of assignments, as an information leaflet aimed at individuals and the families of individuals affected by physiological disorders.

The use of photographs should be discouraged and clinical reports and images are not expected to be included. Data may be quoted within the report, and its interpretation included in the written account, but care should be taken at all times to maintain the confidentiality of all data collected in order to maintain the anonymity of any individuals that are consulted.

It is recommended that the chosen disorders are sufficiently different to enable learners to gain an understanding of disorders relating to the anatomy and physiology of different body systems.

The pass criteria are logical in that P1 requires learners to describe the nature of the physiological disorders and P2 requires learners to describe the signs and symptoms related to those disorders. If the learner is using a friend or family member as the subject for their research then an initial discussion with them can contribute to this part of the assignment, although most of the evidence will come from secondary research.

For P3, evidence from any initial discussions with individuals should be supported by secondary research and information gathered from guest speakers and/or visits to relevant settings. Learners may also gather some evidence from their work experience placements, if appropriate, on the types of investigations that are carried out in diagnosing disorders.

P4 requires learners to use the information they have gathered to plan a care pathway for each disorder they have investigated. Of particular use will be any discussions learners have with relevant practitioners who undertake similar work. Care pathways can be submitted as flow charts and must include information about the practitioners that would be involved at each stage. Much information is available on the internet to help with this criterion. Evidence for P5 can be generated at the same time and needs to be an explanation of the role and value of care strategies that would be used to support individuals with each of the disorders learners are investigating. Again any information that learners can gather from primary sources will enhance their submission.

For the higher grades, learners need to extend their descriptive work and provide evidence that demonstrates their ability to discuss issues, assess and evaluate. For example, for M1, learners need to consider possible difficulties involved in making a diagnosis and assessment of these. M2 requires learners to discuss multi-disciplinary working and the contributions made by different practitioners and agencies in supporting individuals with the disorders, and for M3 learners need to progress from P5 to discuss the available care strategies. Some discussion of the advantages and disadvantages should be encouraged.

To achieve the distinction grade learners need to demonstrate evaluation skills. For D1, they need to consider the effectiveness of multi-disciplinary working in the delivery of care pathways – is it successful? What is the alternative? For D2, learners need to evaluate care strategies. For the latter, learners will need to research alternative care strategies that could have been used, using both primary and secondary methods, and make an evaluative conclusion on the suitability of the choices available.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, M1	Physiological disorders, their nature, signs and symptoms	You work on behalf of agencies that support the families and carers of individuals with particular physiological disorders and have been asked to produce an information leaflet for two disorders.	Individual research resulting in a detailed leaflet, written report or oral presentation (with witness statement and notes).
P3, M1	Diagnosis – how is it carried out?		Storyboard charting the tests and measurements carried out and how the results of these lead to a diagnosis of the disorders, or add information to the leaflet for Assignment 1.
P4, P5, M2, M3, D1, D2	Care pathways and strategies for supporting the chosen disorders	As part of your work you have been asked to conduct primary research into the care pathways and strategies available for individuals diagnosed with the physiological disorders.	Care pathways can be presented in the form of detailed flow charts that also show the roles of relevant practitioners. Strategies for support can be fed into these flow charts or in the form of information leaflets that would be useful to individuals newly diagnosed with the disorders.

Links to National Occupational Standards (NOS), other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Health and Social Care sector suite (see *Appendix A*) and has links with units from other qualifications in that suite. See *Appendix E* for NOS links and *Appendix G* for a mapping of the NHS Knowledge and Skills Framework against particular units in this qualification.

Essential resources

In order for learners to gain the most benefit from this unit they need access to information concerning a range of common physiological disorders. They also need to be able to research current and topical methods of diagnosis, treatment and support. Access to a variety of qualified health practitioners would support this unit and help to prepare learners for entry into a range of health-related professions.

Employer engagement and vocational contexts

Much of the content of this unit is related to current practice across both the health and social care sectors. Employers in these sectors should be asked to underpin the delivery of up-to-date information particularly with regard to methods of diagnosis, treatment and support strategies. Including employers would support learners in understanding the current advances in care for physiological disorders and what support mechanisms can be provided for individuals suffering with them.

Indicative reading for learners

Textbooks

Stretch B and Whitehouse M – *BTEC National Health and Social Care Book 2* (Heinemann, 2007) ISBN 9780435499167

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 1* (Pearson, 2010) ISBN 9781846907663

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 2* (Pearson, 2010) ISBN 9781846907470

Ward J, Clarke R W and Linden R – *Physiology at a Glance* (Blackwell Publishing, 2005) ISBN 9781405113281

Journals and magazines

Biological Science

New Scientist

Nursing Times

Specialist units

There is a wide variety of materials available to support delivery of this unit. In particular, access to relevant health-related work settings will help to contextualise learning, as would the use of guest speakers from a variety of health-related backgrounds. Various leaflets on physiological disorders and support mechanisms are available, for example from local GP surgeries.

Websites

www.bbc.co.uk/health

BBC health website

www.bhf.org.uk

British Heart Foundation

www.bupa.co.uk

BUPA – healthcare company

www.cancerresearchuk.org

Cancer Research UK

www.carersuk.org/Home

Carers UK

www.dh.gov.uk

Department of Health

www.iddtinternational.org

Insulin Dependent Diabetes Trust

www.nhs.uk

National Health Service

www.nhscareers.nhs.uk

National Health Service Careers

www.nhsdirect.nhs.uk

NHS Direct – health advice

www.nice.org.uk

National Institute for Health and Clinical Excellence

www.patient.co.uk

Patient UK – health information

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	[IE1,2] planning which disorders to investigate, and planning and carrying out research
Creative thinkers	[CT2] asking questions about the disorders and their nature, connecting others' ideas and experiences
Reflective learners	[RL2] setting goals for completing a care pathway plan
Team workers	[TW4] showing fairness and consideration to others if carrying out primary research on care strategies
Effective participators	[EP3,4] proposing practical ways forward and improvements that will benefit others when producing a care pathway for each physiological disorder.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Use ICT systems	
Select, interact with and use ICT systems independently for a complex task to meet a variety of needs	accessing appropriate websites for their research into the physiological disorders
Manage information storage to enable efficient retrieval	appropriately storing information on different physiological disorders
Follow and understand the need for safety and security practices	accessing appropriate websites for their research into the disorders
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	researching different physiological conditions, their signs and symptoms, diagnosis, treatment and support
Access, search for, select and use ICT-based information and evaluate its fitness for purpose	accessing appropriate websites
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	presenting written reports, information leaflets or flow charts using ICT using images that are scanned or from clip art for their leaflet designing a leaflet using ICT
Bring together information to suit content and purpose	presenting information using ICT using images designing a leaflet
Present information in ways that are fit for purpose and audience	presenting information for their assignment using ICT using images designing a leaflet flow chart
Evaluate the selection and use of ICT tools and facilities used to present information	accessing appropriate websites for their research into the physiological disorders
Select and use ICT to communicate and exchange information safely, responsibly and effectively including storage of messages and contact lists	researching and presenting relevant information for their assignment work
Mathematics	
Understand routine and non-routine problems in a wide range of familiar and unfamiliar contexts and situations	using measurements relevant to the investigations carried out in order to diagnose the physiological disorders

Skill	When learners are ...
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	delivering a presentation on a physiological disorder(s)
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	researching physiological disorders researching care pathways researching the roles of relevant practitioners researching support strategies
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	researching and presenting relevant information for their assignment work.