Unit 26: Nutrition for Beauty Therapy

Unit code: Y/601/9702

QCF Level 3: BTEC National

Credit value: 10

Guided learning hours: 60

Aim and purpose

The aim of this unit is to develop learners' knowledge and understanding of the principles of human nutrition and how they are applied to the maintenance and promotion of good health.

Unit introduction

The food we eat provides the energy and dietary components required for the body to function at its optimum level. The beauty therapist needs to consider the client holistically (ie the whole person) which includes their lifestyle, especially dietary habits. It is important for a beauty therapist to have an awareness of nutrition to be able to advise clients accordingly.

This unit will enable learners to develop the knowledge needed to give clients information about a healthy, balanced diet and will also prepare them to progress to nutrition-based courses in higher education. These will understand that an essential aspect of maintaining the body is the consumption of food and that nutrients are broken down into simple components, which are then used as a source of energy and to maintain health.

Nutrition and health in developed countries has become an issue of increasing concern, and learners will examine possible links between over- or under-consumption and disorders. Learners will explore the concept of energy balance by considering energy requirements for different individuals. Learners will understand the importance of a healthy balanced diet, and will be able to relate how other factors, such as religion, cultural and psychological factors, have profound effects on dietary habits. The increase in media attention has made the general public more aware of nutritional issues. This unit gives learners knowledge relating to health promotion initiatives to enable them to evaluate health promotion material. Finally, learners will explore how food safety and quality help to prevent certain diseases and disorders associated with nutrition.

This unit will develop learners' awareness of this area of the beauty industry. However, it will not fully develop competence or confer a licence to practice, rather it contributes to the underpinning knowledge and understanding of the appropriate National Occupational Standards (NOS). If learners wish to pursue this area of study, they should contact the relevant professional bodies and seek guidance on further professional study and development.

Learning outcomes

On completion of this unit a learner should:

1 Know the main nutrients required for a balanced healthy diet

2 Understand the concept of energy balance relating to energy requirements of different clients in beauty therapy

3 Understand the importance of a healthy diet and health promotion initiatives

4 Understand the importance of food safety and quality to human health.

Unit content

1 Know the main nutrients required for a balanced healthy diet

Functions of macronutrients: carbohydrates (energy, energy store, role of fibre in diet, dietary sources of carbohydrates); protein (essential amino acids, growth and repair, dietary sources of proteins); lipids (essential fatty acids, omega 3, omega 6, health significance of blood levels of cholesterol)

Functions of micronutrients: vitamins (fat soluble A, D, E, K, water soluble B complex and C, dietary reference values, dietary sources, deficiency diseases, free radicals and antioxidants); minerals (calcium, magnesium, potassium, sodium, phosphorous, trace minerals copper, iron, sulphur, zinc, dietary reference values, dietary sources, deficiency diseases)

Significance of water: biological functions; crucial to health; effects of lack of water; composition of water in a body

2 Understand the concept of energy balance relating to energy requirements of different individuals

Energy balance: concept of energy balance; conditions associated with chronic energy imbalance (obesity, bulimia, anorexia nervosa); effects of chronic energy imbalance

Measurement of energy: units of energy (kilojoules and kilocalories); daily energy requirements for different individuals; basal metabolic rate (BMR); body mass index (BMI); factors affecting energy requirements (age, gender, body size and shape, growth, pregnancy, lactation, occupational and non-occupational activity levels, emotional state, sleep, environmental temperature, illness, drugs)

Dietary requirements of particular groups: ethnic minorities; cultural factors; specific religions; vegetarians; vegans; gender; elderly; infirm; children; pregnant females

Dietary advice: estimate dietary/energy requirements of individuals; offer dietary advice to clients

3 Understand the importance of a healthy diet and health promotion initiatives

Recommendations for a healthy diet: guidelines for a healthy diet; benefits of a healthy diet (reduction in disease and premature mortality, improved quality of life)

Nutrition and diseases in populations: links between diet and incidence of diseases (coronary heart disease, cancer, diabetes, osteoporosis, dental disease)

Prevention of disorders by healthy diet: reduce certain food intake (salt, alcohol, saturated fat, simple carbohydrates); causes and effect of eating disorders eg anorexia nervosa, bulimia

Health promotion: role of health promotion (public, private, government and voluntary organisations); health promotion agencies eg Department of Health, Department for the Environment, Food and Rural Affairs (Defra), British Nutrition Foundation, Food Standards Agency, European Food Information Council (EUFIC)

4 Understand the importance food safety and quality to human health

Food contamination: common food poisoning organisms and food-borne diseases (salmonella, botulism, E-coli, campylobacter, bovine spongiform encephalopathy (BSE)); food allergies eg sensitivity to nuts, wheat, dairy products; food intolerances eg lactose, gluten; chemical safety eg contamination, additives, natural toxins, preservatives

Good practice: consumer protection (food safety legislation, food labelling); food preparation and cooking hygiene

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 describe the functions of the main nutrients and water	**M1** explain the functions of the main nutrients and water	**D1** compare and contrast functions of nutrients and water
P2 explain the energy requirements for different clients, using the concept of energy balance [IE3]	**M2** justify the energy requirements of two clients, using the concept of energy balance	**D2** compare and contrast the energy requirements of two clients, using the concept of energy balance
P3 assess clients' diets, using collected information about their diet and lifestyle [RL1, IE2, IE6, TW4]	**M3** justify assessments of clients' diets, using collected information about their diet and lifestyle	**D3** evaluate clients' diets, using collected information about their diet and lifestyle
P4 explain the links between nutrition, disorders and health promotion information [CT1, CT2, CT3]	**M4** justify the links between nutrition, disorders and health promotion information	**D4** evaluate the links between nutrition, disorders and health promotion information.
P5 explain ways in which contamination of food can result in illness and the good practices which reduce the risk of this occurring. [IE2]	**M5** analyse ways in which contamination of food can result in illness and the good practices which reduce the risk of this occurring.	

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate 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

Clients can be friends and peers and does not mean treatment needs to be carried out on paying clients or within commercial timescales. Tutors delivering this unit should use a variety of teaching methods, for example formal lectures, group discussions, research using the internet and library resources, presentations and, where possible, laboratory practical sessions. Learners should also have the opportunity to examine and criticise health promotion materials.

Whether co-delivered with parts of other units or delivered holistically, there are links with a variety of different units. For a beauty or complementary therapist the whole body is considered for many treatments, for example when considering health and wellbeing, balancing diets, good eating plans, weight loss and maintaining the body's equilibrium through therapy.

Practical scientific investigations will encourage learners to develop skills in data analysis to enable them to act reflectively, critically and independently. It is essential that tutors stress the importance of understanding the main nutrients covered in the unit content so that learners are able to advise clients. Looking at the links between nutrition and certain disorders will assist this. It is important to realise that health promotion information relating to nutrition can be a conflicting and emotive subject and learners will need help in developing their critical evaluation skills.

Laboratory practical work could be considered for learning outcome 1. Learners should have access to a laboratory to examine food content using food tests such as Benedict's test for sugars, the iodine test for starch, Sudan III for lipids, the biuret test for proteins, and the DCPIP test for vitamin C. Practical work in a laboratory is not essential but it might enhance learner appreciation of the nutrient content in food sources and ensure that their learning is very applied and meaningful.

Learning outcome 2 could be covered using a variety of teaching methods. Learners could carry out a research project investigating the lifestyle and type and extent of exercise taken by different clients and using tables of energy usage to estimate daily energy requirements. They could also carry out a dietary assessment of different clients, by asking their clients to keep a food diary for a week. They could analyse diets using food tables, nutritional databases and food labels, and compare the results with published recommended requirements. They could then evaluate the findings and recommend dietary improvement. It is essential for the tutor to emphasise the importance of energy balance and to give learners knowledge of the causes and consequences of energy imbalance, for example obesity and eating disorders. This could be achieved by facilitating research or through formal lectures. For a speaker, such as a dietician could introduce learners to these subjects.

Learning outcome 3, the tutor could consider a variety of teaching methods such as formal lectures, project-based assignments or presentations. Tutors must allow learners to research health promotion material as stated in the unit content and to relate this information to the link between nutrition and diseases.

A similar approach could be considered for learning outcome 4. The tutor should give learners opportunities to relate the diseases stated in the unit content to food hygiene in order to emphasise the importance of appropriate food safety and quality measures. Visits to food manufacturers to listen to talks on food preparation guidelines and legal enforcement issues would help learners understand the rigor involved in food preparation. The Food Standards Agency (FSA) has useful consultation documents and information available to download and also gives advice on information about food labelling, packaging, safety, hygiene and nutrition.

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
Overview of the importance of nutrition led by tutor.
Functions of protein, carbohydrates and fat, including laboratory work in which foods could be tested for nutrients.
Vitamins, minerals, fibre and water. Research into functions of vitamins, and guided practical work involving testing fruit juices for vitamin C.
Assignment 1 – Nutrient Information for Clients (P1, M1, D1). Production of factsheets or a booklet setting out the function of the main nutrients and water.
Energy balance and imbalance. Input by tutor, which could include audio-visual resources. Research into weight loss sites.
Measurement of energy and energy requirements. Practical work using calorimeters and exercise machines if available.
The healthy diet, benefits and recommendations. Investigation of recommendations using guidelines such as the food pyramid.
Nutrition and disease. Research presented to the group.
Assignment 2 – Assessing Clients' Diet and Lifestyle (P2, M2, D2, P3, M3, D3). Learners work in small groups to design an exercise and diet diary and use it to obtain information from each other or from clients. They then analyse the data.
Disorders associated with nutrition. Learners research specific deficiency diseases.
Health information. Learners collect health promotion materials, and view health promotion videos.
Special diets. Learners investigate one special diet each and share their findings.
Assignment 3 – Criticism of Health Promotion Materials (P4, M4, D4). Learners examine samples of health promotion materials, and discuss their aims and the probable impact on readers' nutrition and health.
Assignment 4 – Food Hygiene Inspection (P5, M5). Food hygiene inspection. Tutor introduction to assignment brief.
Food poisoning and food-borne disease. Introduction by tutor, making use of the range of videos and other food hygiene resources available.
Allergies, intolerance, chemical and physical contamination. Learners encouraged to think of ways in which food could become contaminated, and suggest how this could be prevented.

Assessment

This unit is assessed by the centre and will be subject to external verification by Edexcel.

Achievement of the assessment and grading criteria should be evidenced through contextualised, vocationally-related experiences, with tasks specifically designed with the assessment and grading criteria in mind. The theoretical aspects of assessment for this unit can be achieved through learners completing centre-devised assignments or through adaptation from Edexcel assignments where available. Practical assessment criteria will require observation and completion of relevant documentary evidence by the assessor.

Assessment should be as holistic as possible, with assignments designed to cover multiple assessment criteria, even across units, where appropriate. Reference to grading criteria should be made in the assessment documentation, to ensure the criteria have been met.

Assessment can be carried out various ways, but should include gathering and processing data about the diet and exercise habits of individuals, and making recommendations based on this information.

To achieve a pass grade, learners must meet pass criteria listed in the grading grid.

For P1, learners will be expected to describe the functions of the main nutrients and water. They are not expected to write lengthy descriptions but they must provide evidence that they have covered the unit content by describing both macronutrients and micronutrients. For M1, learners must explain the functions of the main nutrients and water. For D1, learners should compare and contrast the functions of the main nutrients and water. A table format could be used and similarities and differences should be commented on.

P2 requires learners to describe the concept of energy balance by discussing energy requirements for two different individuals, of either different age or gender. Evidence could be produced through a variety of methods such as written assignments or presentations. However, if group presentations are used it is essential that learners provide independent evidence to cover the criterion. Information about the individuals being discussed could be taken from given case studies which could be real or fictitious, or learners could gather information themselves from clients, possibly in conjunction with P3. For M2, learners must justify the energy requirements of two individuals, and for D2, learners must compare and contrast the energy requirements of two individuals.

For P3, learners need to process information about the diet and energy usage of individuals, and to use the findings to determine if the diet is healthy. They should provide evidence that they have collected information from two different individuals themselves, but they may also use information which they have been given by their tutor or by other members of the group in order to vary factors such as gender, age and activity. P2 and P3 could be assessed together. M3 requires learners to justify how healthy individuals' diets are.

D3 requires learners to analyse the dietary information collected, comparing the quantities of important nutrients consumed with current recommendations. Learners do not need to give a full analysis of a whole week's diet for all nutrients, but some calculations of quantities should be carried out, in order to evaluate the diets. Online nutrition and calorie calculators can be used to facilitate this.

P4 requires learners to describe the links between nutrition, disorders and health promotion information, while M4 and D4 require higher levels skills (for example justifying and evaluating respectively). Learners could research two nutritionally-related diseases, discussing health promotion materials related to each. The results of their research could be presented in a number of different ways, for example as a display or PowerPoint presentation. M4 requires learners to justify the links between nutrition, disorders and health promotion information. For D4, learners must evaluate different examples of health promotion information. To do this they should explain the aims and target markets of different health promotion materials, and consider how effective they are likely to be in impacting on dietary choices and thus on health. Comparisons could be made between different examples and both good and bad points discussed.

P5 requires learners to explain ways in which food contamination can result in illness, and to describe good practice in food preparation; tutors should encourage learners to make links between the two. A detailed explanation of the illnesses is not required but learners must relate the diseases to their causes and prevention. M5 requires an analysis of how contamination of food can result in illness. Learners could evaluate a process or premises in which food is prepared for human consumption, assessing the risks to health and making recommendations. To do this they could draw up a checklist of food hygiene good practice and carry out an inspection of suitable premises. They could then produce a report in which good practices are identified, explained and commended, and suggestions made for improvement. It is not intended that this criterion should be assessed entirely separately from P5 and M5, and both of these could be achieved through writing the report.

To cover the criteria in a holistic way assessment designed to incorporate all learning outcomes a single assignment would be beneficial. For example, learners could prepare an assignment to cover P1, P2, P4 and P5 such as a health and nutrition information document that includes real case studies of anonymous clients and their diet and lifestyle, evaluating how they could be improved.

It is essential that learners are given opportunities to achieve all the assessment and grading criteria through the assignments. Cross-unit assessment is encouraged whereever possible.

It is recommended good practice for tutors to hold regular assignment workshops where learners bring in their assignment work and work on it, consulting with the tutor when necessary. Signed witness testimonies and observation records must be retained for verification purposes including written transcripts of oral evidence. Supplementary evidence in the form of photographs and consultation record cards could also be provided.

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, M1, D1	Nutrient Information for Clients	Prepare information for clients who wish to understand what the functions of the main nutrients and water.	Factsheets, with diagrams, marked and authenticated by the assessor.
P2, M2, D2, P3, M3, D3	Assessing Clients' Diet and Lifestyle	Use diet and lifestyle diaries to collect and analyse information from two different clients, considering whether their diets are balanced and the energy content is appropriate.	Written report, with statistical tables, marked and authenticated by the assessor.
P4, M4, D4	Criticism of Health Promotion Materials	Obtain samples of health promotion materials, and discuss their aims and the probable impact on the nutrition and health of readers.	Written report or oral presentation marked and authenticated by the assessor.
P5, M5	Food Hygiene Inspection	Investigate a process or inspect a premises where food is prepared, explaining how food contamination can occur and how it can be prevented.	Written report, display or oral presentation marked and authenticated by the assessor.

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

This unit forms part of the BTEC hair and beauty sector suite. This unit has particular links with the following unit titles in the hair and beauty suite:

Level 3
Maintaining Personal Health and Wellbeing

Essential resources

For learning outcome 4, it would be useful for learners to have access to a commercial kitchen and restaurant so that they can evaluate standards of food hygiene in a real food preparation situation.

Employer engagement and vocational contexts

It would be beneficial for learners if guest speakers, for example nutritionists, visit the centre to talk to them.

Indicative reading for learners

Textbooks

Bender D – *A Dictionary of Food and Nutrition 3rd Edition* (Oxford University Press, 2009) ISBN 9780199234875

Food Standards Agency – *Manual of Nutrition 11th Edition* (Stationery Office, 2008) ISBN 9780112431169

Hark L and Darwin D – *Nutrition for Life* (Dorling Kindersley, 2007) ISBN 9781405328357

Mann J and Truswell S – *Essentials of Human Nutrition 3rd Edition* (Oxford University Press, 2007) ISBN 9780199290970

Dicker K – *Exercise (Healthy Lifestyles)* (Evans Brothers, 2010) ISBN 9780237538279

Dicker K – *Diet and Nutrition (Healthy Lifestyles)* (Evans Brothers, 2010) ISBN 9780237538286

Journals and magazines

Guild Gazette (Guild of Professional Beauty Therapists)

Habia News (Seed Publishing Limited)

Health and Beauty Salon Magazine (Reed Business Information)

Websites

www.eatwell.gov.uk/	Food Standards Agency
www.habia.org	Habia, the Standards Setting Body for the hair and beauty sector
www.nal.usda.gov/fnic/foodcomp/search/	USDA National Nutrient Database
www.nutrition.org.uk/	British Nutrition Foundation
www.nutritionexplorations.org/	Nutrition Explorations

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	exploring energy requirements for different individuals [IE3] carrying out research to ascertain how healthy clients' diets are [IE2], supporting conclusions with data collected [IE6] describing ways in which contamination of food can result in illness and appreciating the consequences of good practices [IE2]
Creative thinkers	generating ideas and exploring possibilities about the links between nutrition, disorders and health promotion information [CT1], asking questions to extend their thinking [CT2] and connecting their own and others' ideas [CT3]
Reflective learners	assessing how healthy clients' diets are [RL1], identifying opportunities and achievements
Team workers	showing fairness and consideration to others when assessing how healthy their diets are. [TW4]

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

Skill	When learners are ...
Independent enquirers	evaluating different health promotion materials, carrying out practical research into the presence of nutrients or calorific content, and analysing diets [IE4]
Creative thinkers	connect their own and others' ideas and experiences about the links between nutrition, disorders and health promotion information [CT3]
Reflective learners	assessing their own diets and lifestyles [RL1]
Team workers	collaborating in a team to research food contamination, or to carry out laboratory investigations about the functions of the main nutrients [TW1]
Self-managers	managing their emotions, and building and maintaining relationships when dealing with clients [SM7]
Effective participators	suggesting ways in which nutrition and food hygiene could be improved in their educational establishment, by identifying improvements [EP4] and presenting a persuasive case for action. [EP2]

Functional Skills – Level 2

Skill	When learners are ...
ICT – using ICT	
Select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts	researching nutritional issues in beauty therapy liaising with clients using email
Manage information storage to enable efficient retrieval	collecting data about a client's diet and lifestyle
ICT – finding and selecting information	
Use appropriate search techniques to locate and select relevant information	researching the energy requirements of clients
Select information from a variety of sources to meet requirements of a complex task	explaining the links between nutrition, disorders and health promotion
ICT – developing, presenting and communicating information	
Enter, develop and refine information using appropriate software to meet requirements of a complex task	describing the functions of the main nutrients and water
Combine and present information in ways that are fit for purpose and audience	describing ways in which contamination of food can result in illness and the good practices which reduce the risk of this occurring assessing how healthy clients' diets are, using collected information about their diet and lifestyle
Evaluate the selection, use and effectiveness of ICT tools and facilities used to present information	assessing how healthy clients' diets are, using collected information about their diet and lifestyle
Mathematics – representing:	
Identify the situation or problems and identify the mathematical methods needed to solve them	assessing the energy requirements of clients
Choose from a range of mathematics to find solutions	assessing the energy requirements of clients
Mathematics – analysing	
Use appropriate checking procedures and evaluate their effectiveness at each stage	checking the accuracy of results about the energy requirements of clients
Mathematics – interpreting	
Interpret and communicate solutions to multistage practical problems in familiar and unfamiliar contexts and situations	assessing the energy requirements of different clients
Draw conclusions and provide mathematical justifications	assessing the energy requirements of clients, using collected information about their diet and lifestyle

Skill	When learners are ...
English – Speaking, Listening and Communication	
Make a range of contributions to discussions in a range of contexts, including those that are unfamiliar, and make effective presentations	discussing individuals' energy requirements, the links between nutrition, disorders and health promotion information
English – Reading	
Select, read, understand and compare texts and use them to gather information, ideas, arguments and opinions	evaluating health promotion materials
English – Writing	
Write a range of texts, including extended written documents, communicating information, ideas and opinions, effectively and persuasively	writing an assessment of clients' diets.