

SISFFIT005 Provide healthy eating information



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ASSESSMENT FOR SISFFIT005

Student name	Kayhla Harris
Date of assessment submission	6/12/2018
Trainer/Assessor's name	Kymberley Sant
Date of assessment marking	19/12/2018
Outcome for units	☐ Competent ☒ Not Yet Competent

TASK INSTRUCTIONS

- The assessment for these units of competency consists of the following:
 - **Quiz:** You are required to complete a series of multiple choice questions to demonstrate your knowledge and skills.
 - **Short answer activities:** You are required to provide short written responses to a series of activities to demonstrate your knowledge and skills.
 - **Case studies:** You are required to provide written responses to a series of case study scenarios to demonstrate your knowledge and skills.
 - **Practical task:** You will be required to put your knowledge and skills into practice, through observed tasks and work experience.
- At times, you will be provided with a specific context to which you must respond, otherwise it is anticipated that you will use a scenario of your choosing to provide context to the task.

QUIZ

QUESTIONS	CORRECT
1. The six (6) essential nutrients can be classified as... ☒ Carbohydrates, Fats, Proteins, Vitamins, Minerals, Water ☐ Water, Meat, Vegetables, Breads, Grains, Fats ☐ Fruit, Vegetables, Proteins, Water, Carbohydrates, Fluids ☐ Carbohydrates, Fats, Proteins, Fibre, Minerals, Milk	☒
2. Generally, where does the main source of energy from food come from? ☐ Fats ☒ Carbohydrates ☐ Oxygen ☐ Protein	☒
3. What is the basic daily percentage requirements for carbohydrates? ☐ 10-15% ☐ 33% ☐ 20-35% ☒ 45-65%	☒
4. What does GI stand for? ☒ Glycaemic Index ☐ Glycaemic Indicator ☐ Glyogen Index ☐ Glycolytic Indication	☒
5. 15% to 25% of kilojoules consumed in a balanced diet should come from... ☐ Vitamins and minerals ☐ Water ☐ Fats ☒ Protein	☒
6. What are considered the building blocks of life? ☐ Carbohydrates ☐ Proteins ☐ Fluids ☒ All of the above	☐

7. Which of the following does calcium play a role in? ☐ Bone strength ☐ Blood clotting ☐ CNS transmissions ☒ All of the above	☒
8. Bone strength can be affected by... ☒ High levels of physical activity ☐ Excessive protein intake ☐ Low sodium diet ☐ None of the above	☐
9. What is 1 kcal is equivalent to? ☒ 4.184 kJ ☐ 5.233 kJ ☐ 3.123 kJ ☐ 6.001 kJ	☒
10. How many kilojoules are provided by 1g of fat? ☐ 39 kJ ☐ 17 kJ ☐ 16 kJ ☒ 37 kJ	☒

Outcome for Quiz	☐ Satisfactory ☒ Not satisfactory
Trainer/Assessor comments	Very close Kayhla!

SHORT ANSWER ACTIVITIES

ACTIVITY 1

Briefly describe what is outlined in the Australian government's *Dietary Guidelines for Australian Adults*.

Brief description

The Dietary Guidelines for adults state that we should maintain a healthy weight by eating a variety of nutritious foods from the 5 food groups (vegetables, fruits, grains, protein & dairy) and be physically active. Prepare and store food safely. Limit the intake of saturated fat, salt, added sugar and alcohol. Encourage and promote breastfeeding.

Outcome for Activity 1

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 2

Respond to the following questions about metabolism:

- a) Provide a definition of metabolism.
- b) Explain the role of metabolism in body composition and muscle contraction.

Definition

Metabolism is the chemical process by which your body converts what you eat and drink into energy.

Role of metabolism

During this complex biochemical process, calories in food and beverages are combined with oxygen to release the energy your body needs to function. Muscle contraction occurs via metabolism of adenosine triphosphate (ATP) derived primarily from the simple sugar glucose.

Outcome for Activity 2

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 3

Diabetes is a disease which affects people of all ages throughout Australia.

- a) Describe the difference between Type 1 and Type 2 diabetes.
- b) Explain how nutrition plays a role in the symptoms and treatment of diabetes.

Differences between types

Type 1 diabetes is an autoimmune condition. It is more commonly diagnosed in children and young adults but can occur at any age. It is always treated with insulin.

Type 2 diabetes is the form of diabetes related to ageing, family history and lifestyle factors (overweight and inactivity). It occurs when insulin is not working effectively, or the pancreas does not produce sufficient insulin. It usually develops in adults over the age of 45 but is increasingly occurring at a younger age.

Role of nutrition in symptoms and treatment

Type 2 diabetes can be treated with maintaining a healthy lifestyle such as: physical exercise on most days, loss of excess weight, maintaining a healthy weight, adopting healthy eating including fruits, vegetables and low fat foods, not smoking.

Outcome for Activity 3

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 4

Many clients look to their trainer for advice on nutrition.

- a) How much advice should a trainer give on nutrition?
- b) Where else can clients look for nutrition advice?

Trainer advice

A trainer should not give advice on nutrition.

Other advice sources

I would refer a client to a Nutritionist or Dietician or recommend they visit different websites such as: Nutrition Australia, Food Standards Australia and The Australian Heart Foundation.

Outcome for Activity 4

- ☐ Satisfactory
☒ Not satisfactory

Trainer/Assessor comments

Please review for Trainer Advice- a Trainer can give basic advice.

ACTIVITY 5

Glycaemic Index is a classification system for foods.

- a) Describe the purpose of the Glycaemic Index.
- b) Explain the basis for how foods are rated.

Purpose

The Glycaemic Index is a scale that ranks carbohydrate-containing foods based on their effect on the blood sugar levels over a period of time, usually 2 hours. Low GI foods prolong digestion due to their slow breakdown and may help with feeling fuller for longer.

How foods are rated

Carbohydrate-containing foods are compared with glucose or white bread as a reference food, which is given a score of 100. The GI compares foods that have the same amount of carbs, gram for gram. Carbohydrates that break down quickly during digestion, such as baked potatoes, have a higher GI (more than 70) as they release their glucose into the blood quickly. Carbohydrates that break down slowly, such as oats, release glucose gradually into the bloodstream and have low GI (less than 50).

Outcome for Activity 5

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 6

Respond to the following questions about lactose intolerance:

- a) Provide a definition of lactose intolerance.
- b) Identify foods to avoid to prevent gastrointestinal discomfort.

Definition

Lactose intolerance is the inability to digest lactose, a component of milk and other dairy products due to insufficient amounts of the gut enzyme called lactase in the small intestine. The most common symptoms are bloating, gas, abdominal pain and diarrhoea.

Foods to avoid

Lactose is found in milk, yoghurt, cream, butter, ice-cream and cheese. It can also be found in some breads, baked goods, breakfast cereals, deli meats and margarine so its always best to check the labels.

Outcome for Activity 6

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 7

Water plays a key role in nutrition for all humans. What are its key uses in the body?

Key uses of water

Our bodies are made up of 60% water. The body uses water in all its cells, organs, and tissues. It helps regulate temperature, protect tissues, spinal cord and joints, helps the body to remove waste through perspiration, urination and defecation, aids in digestion and prevents dehydration.

Outcome for Activity 7

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 8

Irritable Bowel Syndrome is a highly publicised illness.

- a) What are its effects on the body?
- b) What treatments are available for sufferers of Irritable Bowel Syndrome?

Effects on body

IBS can cause abdominal pain or cramping, alternating diarrhoea and constipation, a sensation that the bowel is not fully emptied after passing a motion, mucus in stool, abdominal bloating and nausea.

Treatments

IBS cannot be cured with medication or special diets. The primary preventative measure is to identify and avoid individual triggers. These include: Increase in dietary fibre, reducing or eliminating common gas-producing foods, such as beans and cabbage, anti-diarrhoea medication, pain-relieving medication, laxatives, stress management, establishing eating routines and avoiding sudden changes of routine. A group of Carbohydrates called FODMAP is believed to contribute strongly to symptoms of IBS. A low FODMAP diet can be tried with the supervision of a Dietician.

Outcome for Activity 8

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 9

Observation of religious practices can have an effect on training.

- a) What are some training considerations for a client undertaking Ramadan?
- b) Describe your role, as a trainer, in guiding a person who still wants to train during this month of fasting.

Training considerations

During Ramadan Muslims abstain from eating and drinking during daylight hours for 30 days. In this fasted state, intense exercise is not recommended due to the risk of dehydration and hypoglycaemia.

Guiding clients

If a client still wants to train during Ramadan I would stress that they would still need to maintain their appropriate total daily calorie, nutritional and water intake during the non-fasting hours. The intensity of exercise, for both cardio and strength training may need to be reduced depending on what time of day they are working out.

Outcome for Activity 9

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 10

Body image is an area that affects people of all ages. In what ways can you, as a trainer, assist in the promotion of healthy body image for the following parties:

- a) Your clients.
- b) All people in the fitness industry.

Clients

I would never assume a client's goals are purely aesthetically based. I want my clients to know that fitness isn't about looking a certain way and that they can be healthy at any size. I would encourage them to set performance-based goals like getting stronger or feeling physically capable. This can increase self-esteem and body image and is more likely to produce sustainable results. I would also never talk about my own body in a negative way and be open about struggles I have with sticking to a healthy lifestyle.

Fitness industry

I encourage fitness professionals to promote a healthy, balanced lifestyle. Those who wish to compete in competitions and use social media need to show the other side of their happy skinny snaps. They are often promoting an unsustainable way of living and people need to know that just because they buy what they are selling or being paid to promote won't yield the same results.

Outcome for Activity 10

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 11

The role of social media has had a large impact on people's use of fad diets, supplements and performance enhancers.

- a) What advice would you give to a client with regards to these issues?
- b) Who would you refer clients to talk to before using/undertaking any of these nutritional avenues, in order to ensure their safety?

Advice

I would advise that there is no "quick fix". Fad diets often promote dramatic, unrealistic weight loss results and many are designed to take advantage of people's willingness to try anything to look better. They are not sustainable and often severely restrict food groups or nutrients meaning that you miss out on the protective health benefits that a balanced diet and exercise plan provides. Social media and "insta models" are being paid to promote certain products and more often than not images are photoshopped and do not reflect reality.

Referral for advice

There are so many different products on the market readily available, but people need to get expert advice from a qualified professional. I'd recommend clients get a medical examination at their local GP where they can advise if certain supplements will interfere with other medications or talking to a Sports Dietician and seeing if the supplement is safe.

Outcome for Activity 11

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

ACTIVITY 12

Find one (1) scholarly article discussing the benefits of diet on mood and mental health. Summarise the findings of this article in 100-200 words.

Role of food in mental health

Indian J Psychiatry. 2008 Apr-Jun; 50(2): 77–82.

doi: [10.4103/0019-5545.42391]

PMCID: PMC2738337

PMID: 19742217

Understanding nutrition, depression and mental illnesses

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A key indicator in revealing the benefits of diet on mood and mental health can be found in the study of nutritional neuroscience. Nutritional neuroscience is an emerging discipline that provides facts that nutritional factors are intertwined with human cognition, behaviour and emotions.

Nutritional neuroscience is the specific discipline that studies the effects various components of the diet such as minerals, vitamins, protein, carbohydrates, fats, dietary supplements, synthetic hormones and food additives have on neurochemistry, neurobiology, behaviour and cognition.

Research reveals that the most common mental health disorders prevalent in many countries are depression, bipolar disorder, schizophrenia and obsessive-compulsive disorder.

Depression can be thought of as strictly a biochemical based or emotionally rooted condition. Studies indicate that nutrition can play a key role in the onset as well as the severity and duration of depression. Poor appetite, skipping meals and “having a sweet tooth”, (a desire for sugar laden foods) is quite prevalent in people diagnosed with depression and many of the predominant food patterns that may precede depression are similar if not the same as that are present during depression.

Studies reveal that use of daily supplements of essential nutrients are often effective in reducing patients’ symptoms, also the use of supplements containing amino acids have also been found to reduce symptoms as they are converted to neurotransmitters which in turn assist in alleviating depression and other mental problems.

Outcome for Activity 12

☒ Satisfactory

☐ Not satisfactory

Trainer/Assessor comments

CASE STUDIES**CASE STUDY 1**

Observe your eating habits for two (2) days.

- a) Complete a food diary for the two (2) days. Take note of the kilojoules consumed and major nutrients ingested.
- b) In 300 words, discuss your daily food intake
 - Examine the key nutrients and discuss the benefits and negatives of the foods you consumed.
 - Identify four (4) changes you can make to your diet to better meet your recommended daily nutritional needs.
 - Should you believe you do not need to make any changes, identify four (4) pieces of nutritional advice you would give to a client to improve their eating.

Respond to the following questions:

- c) What societal and cultural beliefs and activities have an impact on people's food choices?
- d) Discuss the role of essential nutrients in digestion and regular muscle and body function.

DAY 1

Meals	Food consumed	Kilojoules	Major nutrients
Breakfast	3 poached eggs, 2 slices wholemeal toast with half an avocado	2036	Protein, Carbohydrates, Fat, Fibre, Iron
	1 x Black Coffee	8	
Lunch	200g Tuna in Springwater and Salad	1088	Protein, Vitamin A, Vitamin C
Dinner	Smoked Salmon Alfredo	1757	Carbohydrates, Protein, Fat, Sodium, Potassium, Vitamin C
Snacks	1 x Mango	1095	Carbs, Fibre Protein, Calcium Fat, Carbs, Calcium Fat, Potassium, Calcium
	1 x Lo Carb Chocolate Protein Shake	618	
	1 x Strawberry Greek Yoghurt	724	
	30g Walnuts	871	

DAY 2			
Meals	Food consumed	Kilojoules	Major nutrients
Breakfast	Smoothie: Light Soy Milk, Vanilla Protein Powder, Oats, ½ Banana, Ice	1562	Protein, Carbohydrates, Calcium, Potassium
	2 slices multigrain toast with Peanut Butter	1665	Carbohydrates, Fat, Protein, Sodium
	Black Coffee	8	
Lunch	250g Rump Steak with Sweet Potato Chips and Garden Salad	2525	Protein, Fat, Carbohydrates, Iron, Vitamin A, Vitamin C
Dinner	Chicken and Quinoa Stir Fry with veggies	1577	Carbohydrates, Protein, Sodium, Vitamin A, Vitamin C, Vitamin B6, Vitamin K
Snacks	1 x 375ml can Mountain Dew ½ Banana	737 255	Carbohydrates Potassium, Calcium Carbohydrates

Your daily food intake

Day 1 Total kilojoules: 8197 Fitbit recorded kilojoules burned: 10451

Day 2 Total kilojoules: 8329 Fitbit recorded kilojoules burned: 11367

After tracking my eating over the last two days I'd say I consumed a healthy, balanced diet. Loaded with Carbohydrates, Protein, Fats, Vitamins and minerals. I also take a daily multivitamin and a magnesium supplement on training days just in case I'm not getting it all from my food.

I trained at the Gym on both these days and find that when I start my day with a high Protein and Carbohydrate breakfast I have a lot more energy and fill fuller for longer.

As my fitness goals are to build more muscle, I will need to increase my food intake to keep up with the kilojoules I'm burning daily.

I also need to track my Protein intake more closely. 1.5-2g/kilo of bodyweight per day is recommended for building muscle.

Although I don't drink soft drink very often, I consumed a can on one of the days. This could easily have been substituted with mineral water and fresh lime etc as soft drinks are just empty calories.

On one of the days I was out for lunch with friends. I could have ordered something smaller and healthier, but who can say no to steak?! I did substitute potato chips for sweet potato chips whereas I should've ditched the fries altogether.

Societal and cultural beliefs

What people eat is formed essentially by social and cultural circumstances. There are clear differences in social classes regarding food and nutrient intakes. Education plays a big role as poor diets can result in micronutrient deficiency and energy over consumption, resulting in weight gain and obesity. Cultural influences lead to the difference in the consumption of certain foods and in traditions of preparation. In certain cases, can lead to restrictions such as exclusion of meat/meats and milk from the diet.

Role of essential nutrients

There are 6 essential nutrients our body needs to stay healthy.

Carbohydrates: The body's main energy source and the brain's only source of fuel.

Protein: Builds new tissues, such as muscle, skin, bone, and hair. Production of antibodies, enzymes, hormones and other compounds.

Fats: Provide backup energy for when carbohydrates aren't available. Also, to help your body absorb fat-soluble vitamins, and to protect your organs.

Vitamins: Facilitate the use of other nutrients, involved in regulating growth and manufacturing hormones.

Minerals: Help build bones and teeth. Aid in muscle function and nervous system activity.

Water: Involved in many of your body's vital functions. Distributes other essential nutrients to your cells, removes waste and regulates body temperature.

Outcome for Case Study 1

- ☒ Satisfactory
☐ Not satisfactory

Trainer/Assessor comments

Great work here- love your summary!

CASE STUDY 2

Michael has joined your gym after training at another facility for six (6) months. Michael has expressed frustration at his inability to lose body fat and gain lean muscle mass. He wants to make significant changes over the next six (6) months.

Michael is lifting weights from a program he found on the internet, and he is following advice that he has read online. Michael is interested in following the Paleo diet to help him lose body fat.

Respond to the following points:

- a) Recommend methods to help lost body fat, increase lean muscle mass and improve general wellbeing.
- b) Describe the way body systems react to nutrients in food and use them for energy.
- c) Identify ways to improve Michael's current body satisfaction.
- d) Flag issues with internet forums and advice suggested online.
- e) List the best places and people to go to for nutritional and training advice.
- f) Discuss fad diets and the benefits/positives of the Paleo diet.
- g) Explain the consequences of poor nutrition with regards to chronic diseases.
- h) Develop a program of exercises and training methods to help Michael meet his goals of fat loss and hypertrophy.

	Response
a)	The most effective way to lose fat while simultaneously gaining lean muscle mass is to combine resistance training with cardio. Following a tailored program, paired with eating a healthy, balanced diet Michael should see results within the 6 months as outlined.
b)	Essential nutrients are those that either cannot be made by the body at all or cannot be made in high enough amounts and must be consumed in the foods we eat. Eating the right foods assists the body systems to serve many functions including: Metabolism, digestion, provide energy, heart rate, removing waste from the body, build strong muscles and bones and support sharper mental focus and cognitive function.
c)	As Michael has already been training for 6 months and is unhappy with his results, I would suggest taking regular photos to track and show him his progress. The scales can be an unreliable source when lifting weights as muscle weighs more than fat and so even when someone has lost fat, they can still weigh the same as they've gained muscle. Also setting goals and achieving those lifts can be encouraging to someone lifting weights.
d)	The issue with Internet Forums and getting advice online is that the people posting can be anonymous and unqualified to be giving the correct information. And because everyone and every body is different a generic information sheet or forum does not apply to everyone who reads it. This could lead to injury, illness and disappointing results for the reader.
e)	GP, Dietitian, Sports Dietitian, Nutritionist, and although a Personal Trainer can't give advice on nutrition they would be best to go to for training advice.
f)	A fad diet is one that makes promises of weight loss or other health advantages without backing by solid science. They are often highly restrictive, eliminate whole food groups or include unusual and unnecessary food products and ingredients. The Paleo Diet, also referred to as the Caveman's Diet has many benefits as it promotes eating whole, unprocessed animal and plant foods. These include meat, fish, eggs, vegetables, fruits, seeds and nuts. Paleo can help with weight loss as its high in Protein, low in Carbs and incredibly filling. It also avoids processed foods, sugar, dairy and grains.

g)	Research has shown that poor nutrition, including a lack of fruit, vegetables and whole grains is associated with the development of multiple chronic diseases over time. Diet-related chronic diseases, such as obesity, diabetes, cardiovascular disease, cancer, dental disease, and osteoporosis are the most common cause of death in the world.
h)	I would devise a program for Michael broken down into different exercises (4-5 different exercises performed for 8-12 reps for 3-4 sets) on different days. An effective way to work all the muscle groups in a week is to separate them into days such as Push (chest), Pull (back) and Legs. Combined with Cardio machines after lifting and/or attending 1 or 2 HIIT classes at the Gym/week also.

Outcome for Case Study 2	☒ Satisfactory ☐ Not satisfactory
Trainer/Assessor comments	

PRACTICAL TASK

You are required to have a suitable observer verify your ability to complete the following tasks. These tasks may be simulated or real.

TASKS	VERIFIED
A. Over a period of at least two (2) hours, you are to provide five (5) clients with information on healthy eating relating to the maintenance of health and prevention of chronic disease. Each client has special needs (i.e. specific dietary requirements/concerns or needs support regarding positive eating attitudes). During each client contact session, you are to complete the following: • Collaborate with the client to implement healthy eating habits, showing sensitivity to cultural and social differences influencing food choices • Refer to current healthy eating information resources, answering client queries/concerns regarding the interpretation of such resources • Explain the adverse effects of poor nutrition • Identify and prepare a referral to an accredited practising dietitian, accredited sports dietitian and/or general practitioner	<input data-bbox="1321 376 1362 421" type="checkbox"/>

Outcome for Practical Task	<input data-bbox="635 952 660 987" type="checkbox"/> Satisfactory <input data-bbox="635 992 660 1028" type="checkbox"/> Not satisfactory
Trainer/Assessor comments	