

# Food technology food product development

Technology



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These can include smoking, family history, hypertension, obesity, diabetes, high alcohol consumption, lack of exercise, stress and hyperglycemia.

Smoking is the highest risk factor accounting for around 54% of cases followed by obesity at 20% and lack of exercise at 7-12% of cases. The symptoms of CHAD include angina (chest pains), heart attacks and heart failure. When the coronary arteries get blocked this can cause a mild uncomfortable feeling similar to Indigestion. However a severe angina attack can cause a painful feeling of heaviness or tightness usually In the chest.

Heart attacks can cause permanent damage to the heart muscle and, if not treated straight away can become fatal. However symptoms are similar to that of angina, it is usually more severe. During a heart attack you may also experience sweating, light-headedness, nausea and breathlessness. Heart failure can also in people with CHAD when the heart becomes too weak to pump blood around the body, which causes a fluid build up in the lungs making it increasingly difficult to breathe. Heart failure can happen suddenly (acute heart failure) or it can gradually build up over time (chronic heart failure).

Explain the extent of this problem for the Australian community and why It why It occurs. Coronary heart disease is a major problem In Australia. This is because of three factors. Firstly CHAD affects about 1 In every 6 Australians. This number Is enormous and shows how much medical resources Is being used In order to accommodate for this preventable disease. CHAD usually occurs from having a high fatty diet or smoking. Both of which is common in Australia. Explain why Australia has a high number Explain why its an issue (deaths) Statistics on death rates

Using four examples of manufactured foods, List describe and explain how they are used in the diet to control the disease identified in question 1 .

People with CHAD need to consume more foods that are: -low In saturated and transfers. Saturated fats are found In some meats, dairy products, chocolate, baked goods and deep-fried and processed foods. As this accumulates In the arteries adding to the blockage. - high In the types of fat found In fish and olive oil. These fats are rich in omega-3 fatty acids. Omega-3 fatty acids Fiber is found in whole grains, fruits and vegetables.

A fiber rich diet not only helps rower OLD (low density lepidopterist) cholesterol level, but also provides nutrients that may help protect against CHAD Knowing all of this, a person suffering from CHAD would need to factor all of this into their diet aiming to include as many of these factors into as many meals as possible. Four manufactured foods that can be used in the diet to control a person's CHAD levels can include cholesterol lowering margarine, multimedia bread, a low fat yogurt and a high fiber cereal. Cholesterol is a fatty substance produced by the liver to help meet the body need for hormones and bile acids.

It enters the body when foods high in fat are consumed or when the body cholesterol level is higher than necessary for normal cell functioning. The resulting high blood cholesterol is a condition that greatly increases your chances of developing coronary heart disease. So by a person choosing a cholesterol lowering margarine over butter it greatly reduces their risk of CHAD. These margarine are made with stalls and stereos that can help lower a person's cholesterol level by about 10 percent however this is not enough to " cure" their high cholesterol level.

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These need to be used inclusively with a number of other cholesterol lowering foods. Choosing wholesome bread instead of white bread is also an advantage for someone suffering from CHAD. Wholesome bread is packed with fiber to keep the person fuller for longer, wholesome bread retains the nutrients and healthy plant compounds found naturally in the grain.

Choosing this over white bread provides the person with more fiber. When you eat soluble fiber, the fiber binds with dietary cholesterol in your intestines and reduces your body ability to absorb LDL. This binding mechanism reduces the amount of LDL circulating in your bloodstream.

This is why it is so important for a person to consume high amounts of fiber. Choosing a low fat yogurt at the supermarket instead of one high in fat reduces the amount of LDL that would have otherwise been taken in. Some yogurts are very high in low density lipids which clog up the arteries and restrict blood flow. Choosing ones that have little or no fat means that these low density lipids are abundant. Heart first breakfast cereal is considered the number one choice for maintaining or building a healthy heart. It is loaded with nuts, seeds, cranberries and added wholegrain barley.

This cereal helps lower cholesterol and also contains beta-glucan which is a type of soluble fiber which has been found to be beneficial in lowering cholesterol levels. It is also scientifically designed by the FDA to serve this purpose of lowering cholesterol. Describe 2 recommendations that could be made to a sufferer of this disease in order to improve their health. Two recommendations that could be made to a sufferer of CHAD in order to improve their health could include: being physically active and quitting

smoking. You do not have to be an athlete and dedicate hours of exercise into your routine to lower chances of getting CHAD.

As little as 60 minutes of moderate-intensity (moderate intensity raising the heart to at least 80% of your maximum heart rate) aerobic activity per week. However for major health benefits, adults should be doing at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic activity each week. The reason why being physically active helps to improve a sufferer of CHAD is because it lowers the person's blood pressure. Being physically active builds the heart muscle making it bigger and stronger. This allows it to push

Describe 2 products that could fulfill the brief

Two products that could fulfill the brief include a vegetable lasagna and a kangaroo stir-fry. The vegetable lasagna would be a traditional lasagna where it is stacked in-between layers of filling and pastry although to provide a healthier alternative for the people suffering from CHAD instead of having a meat filling it would have a mixture of finely chopped onion, chopped capsicum, sliced zucchini, eggplant, sliced mushrooms, dried tomatoes, and spinach; and instead of having traditional cheese and a mozzarella topping it would have low fat ricotta cheese and wouldn't have the Carmella.

This lasagna would fulfill the brief because it has a dramatic reduction in fat with the low fat ricotta and without the mozzarella this would assist in not only the people losing weight but helping not clog their arteries. This is opposed to traditional lasagna which contains a high amount of fat in the cheese and pasta sheets.

A kangaroo stir-fry is a modified version of traditional stir-fry replacing beef with kangaroo and a other number of healthier spins such as sobs noodles opposed the hookier noodles which are high in fat and are relatively high on the glycerin need and lime Juice instead of soy sauce which contains a high amount of salt. The kangaroo stir-fry would be suitable for the brief as it is able to be prepared and reheated quickly, contains a high number of vegetables including carrot and broccoli, is low in fat, and has a high amount of proteins in the kangaroo meat.

This is suitable for someone who is suffering from Cardiovascular Disease as it is low in fat, cholesterol which clogs the arteries, salt which raises the blood pressure, low in the glycerin index which will keep them fuller for longer stopping them from consuming s much food, and provides with a number of vitamins and minerals. Screen these 2 products to identify a final choice Vegetable lasagna I Kangaroo stir-fry I - however being comprised of low fat substances such as the cheese and pasta sheets, still has a relatively high amount of fat. - sauce is higher in fat and cholesterol- doesn't contain much proteins as there is no meat in it. Has a high variety of vegetables including carrot and broccoli. I - has almost no fat except for the small amount in the sobs noodles which are less than any other type of noodles. - sauce notations almost no fat or cholesterol although has a small amount of salt which raises the blood pressure, however this amount it too small to be significant. - kangaroo meat contains high amounts of protein, is low in fat, contains low levels of saturated fats, is a source of omega-3, contains CLAN which is a antioxidant helping reduce body fat, a rich source of minerals iron and zinc, and contains high amounts of vitamin B. Has a high variety of

vegetables including carrot and broccoli. I From this table I have concluded that the kangaroo stir-fry would be the better choice cause overall it has a lower fat and cholesterol content and contains a higher amount of proteins, vitamins and minerals. Also it requires less time to cook and prepare which means production will be quicker providing customers with fresher for consumption on the go. In conclusion from the results gathered by this table, I have found that the range of customers are happy with many aspects of the dish especially the originality and intuitiveness of the addition of kangaroo in the dish.

Although there are minor aspects of the dish that can be tweaked to better suit the market. One person spooned that traditional stir-fry noodles can contain high amounts of fats and to replace these with something less fatty. After doing some research I found that Sobs noodles are the best noodles for the dish as they contain the lowest levels of fats and high amounts of fiber while still being suitable for a stir-fry. So to combat this issue, the traditional stir-fry hookier noodles will be replaced with a less fattening lower GIG and high fiber Sobs noodle.

All participants responded by saying that reheating in a microwave would be suitable for a stir-fry which allows the product to be either " fresh" or " frozen". A " fresh" variation of the meal would be sealed appropriately in modified atmosphere packaging and would be found in the refrigerated section of the supermarket whereas a " frozen" variation of the packaging would be sealed in an oxygen packaging but found in the freezers of supermarkets.

When asked which would be more preferred " fresh" or " frozen" more participants replied with " frozen" as it is more practical and can be stored longer in a freezer than in a refrigerator. This is also an advantage as most other home replacement meals are found in the freezer sectors of supermarkets. Although most of the participants said that they would rather sit down to eat this meal, the stir-fry will come packaged with a knife and fork so that people can eat it away from home and to allow for " on the go" consumption if need be.

When asked on the idea of a kangaroo-stir-fry, one participant responded by saying change the meat with something a little more common. However the meat will not be changed as kangaroo is low in fat and contains numerous amounts of positive health qualities when compared to other meats, so the meat will stay as kangaroo. Finally participants responded positively with the idea of a kangaroo stir-fry saying that it is original and that they would buy it from supermarkets.