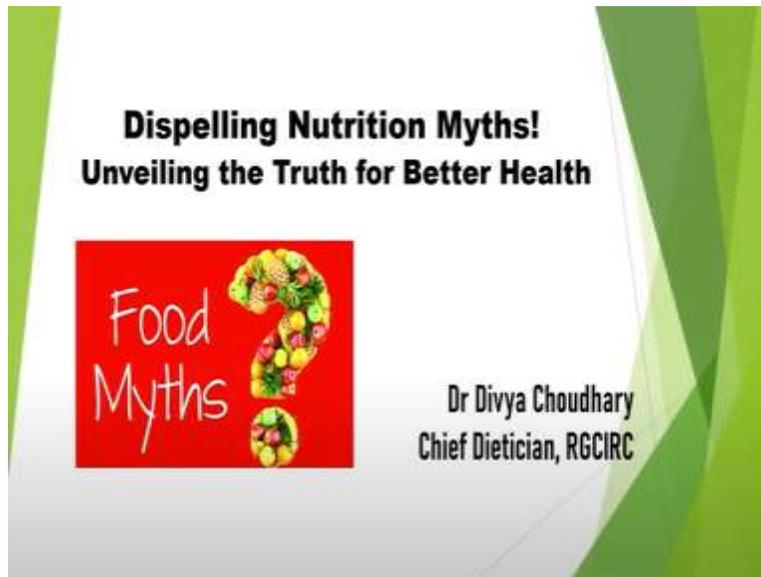


Certificate in Integrative Palliative Care – 3
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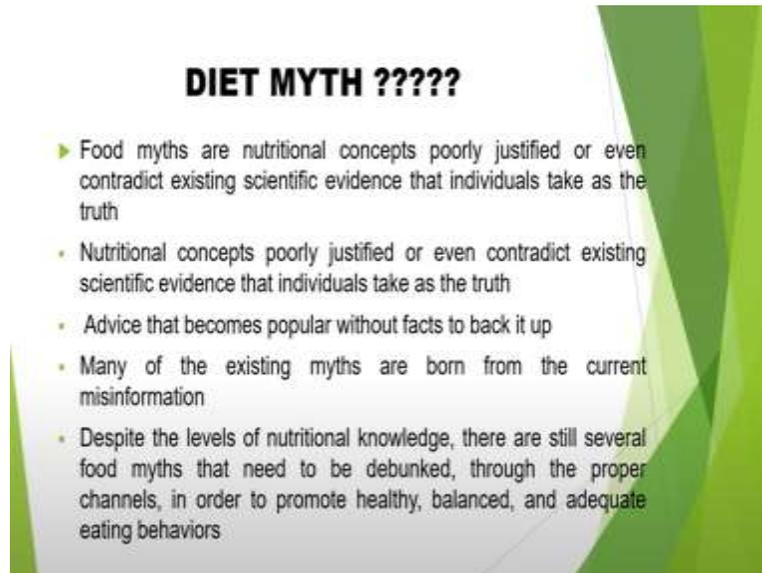
Week-09
Lecture 72: Dispelling Nutrition Myths!

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Namaskar. In the series of Diet Education, today we will discuss about a very sensitive and an important topic, Dispelling Nutrition Myths, Unveiling the Truth for Better Health. We all read newspapers, we watch TV channels, all of us have smartphones with us, we are very closely connected with internet and are very regular on social media platforms like Instagram, Facebook, YouTube and we try and obtain nutrition related information from most of these sources. But the question is that wherever we are trying to obtain this information from, are we sure that that information is authentic coming from a right source? It is like an ocean where there is lot of information, but what to pick, how to pick and what is the reliable source? Do we actually think about these things? We don't even give a second of thought without transferring the information from our mobile to someone else's. Because we think that we are trying to help the other person by sharing the information. But are we actually on the right path or not? Today we will discuss all these things in this session.

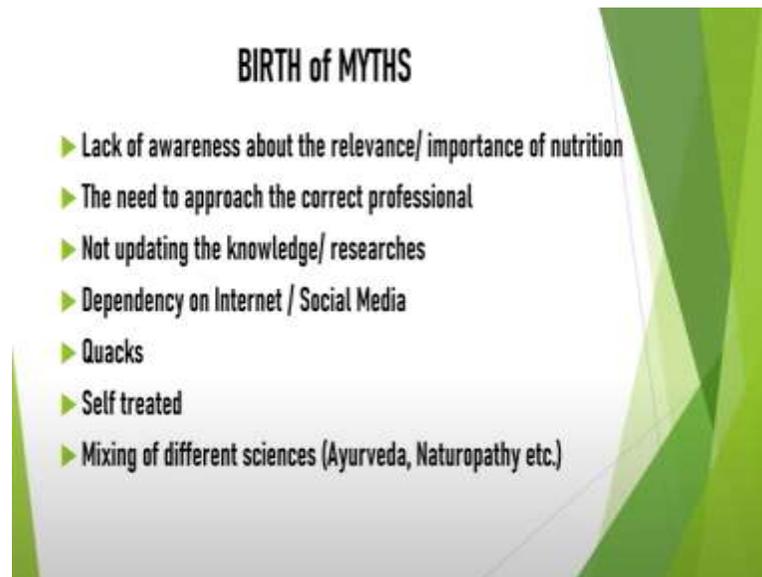
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Diet myths. What exactly they are? Where do they come from? Food myths are nutritional concepts poorly justified or even contraindicate existing scientific evidence that individuals take as the truth. Nutritional concepts poorly justified or even contradict existing scientific evidence that individuals take as the truth. Advice that becomes popular without facts to back it up.

Many of the existing myths are born from the current misinformation. Despite the levels of nutritional knowledge, there are still several food myths that needs to be debunked through the proper channels in order to promote healthy, balanced and adequate eating behaviors.

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Where do these myths originate from? Lack of awareness about the relevance or importance of nutrition. Generally, food and nutrition is perceived as if someone has to fill the stomach or we have to satisfy our taste buds. That is the way we generally see food as.

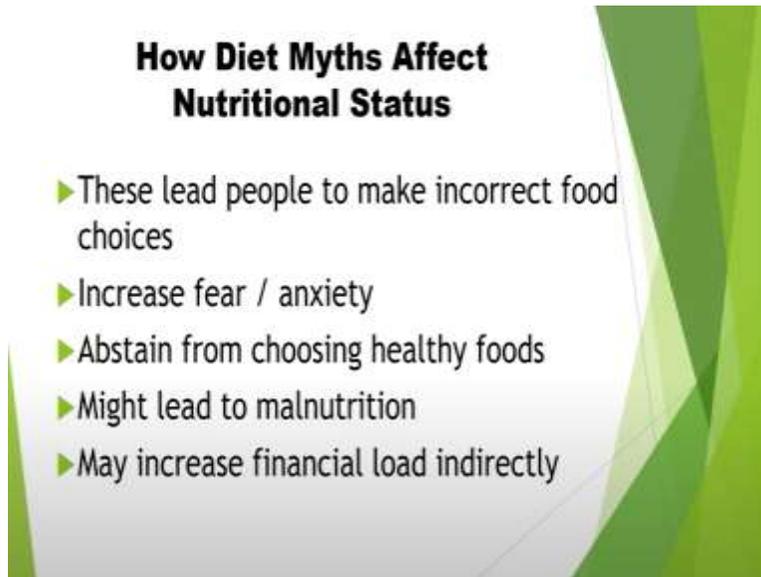
The need to approach the correct professional. Anyone and everyone can give actually advice on diet or food. Not updating the knowledge or researches. Too much dependency on internet and social media without checking the source or authenticating the information. There are many quarks.

Self-treatment is always an option with most of us. And generally there is a mixing of different scientific principles like Ayurveda, naturopathy. Sometimes we tend to mix the principles unintentionally.

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How Diet Myths Affect Nutritional Status

- ▶ These lead people to make incorrect food choices
- ▶ Increase fear / anxiety
- ▶ Abstain from choosing healthy foods
- ▶ Might lead to malnutrition
- ▶ May increase financial load indirectly



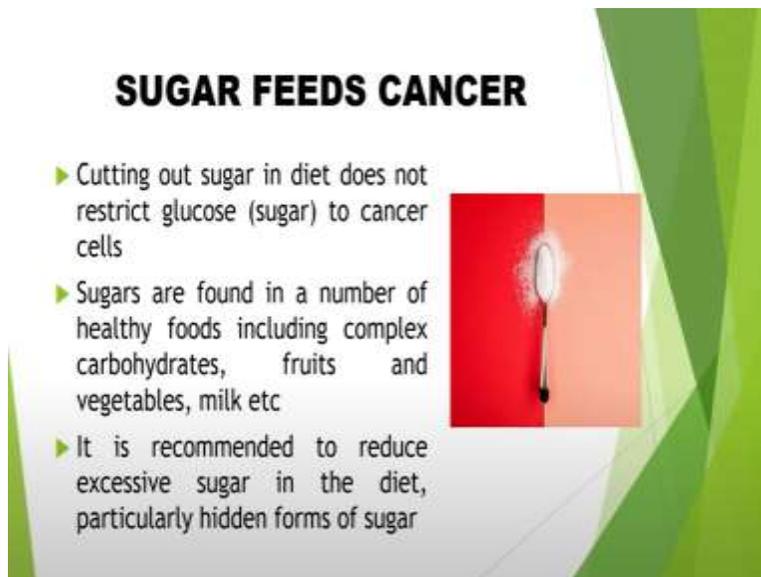
How diet myths affect the nutritional status of any person who is in health or as a patient. These myths can lead people to make incorrect food choices.

They can increase the fear leading to anxiety. They can make abstain from choosing healthy foods. Diet myths can lead to malnutrition if there is too much dependency. And this can lead to increase in financial load indirectly.

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SUGAR FEEDS CANCER

- ▶ Cutting out sugar in diet does not restrict glucose (sugar) to cancer cells
- ▶ Sugars are found in a number of healthy foods including complex carbohydrates, fruits and vegetables, milk etc
- ▶ It is recommended to reduce excessive sugar in the diet, particularly hidden forms of sugar



So there are certain food myths which we will be discussing in today's session, particularly in relation with cancer.

First, this is the most common or most prevalent that sugar feeds cancer or the recurrence of the disease can increase. Cutting out sugar in the diet does not restrict glucose to cancer cells. Sugars are found in a number of healthy foods including complex carbohydrates, fruits, milk, etc. There are different forms of sugar which are present in different foodstuff. People generally get confused because they believe that what is visible to their naked eye is the sugar like sugar is being mixed with tea coffee milk or some sweet dish.

Sugar is also present in hidden forms in many of the food products which are most commonly breads biscuits or other processed and packaged food items bakery goods etc. So completely removal of sugar in the diet is not advisable. If you are completely removing sugar from the diet, it can lead to malnutrition, can lead to deficiency in calories. Please meet a dietitian or a healthcare practitioner who will be able to help you make a diet plan. Yes, if someone is obese or someone has diabetes then definitely restriction of sugar will help.

It is recommended to reduce excessive sugar in the diet particularly hidden forms of sugar.

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Raw fruits & vegetables should be avoided during chemotherapy



- ▶ Chemo affects TLC
- ▶ Immune system gets compromised
- ▶ Patient is prone to infections from anywhere
- ▶ Hygiene & Sanitation
- ▶ F&V - good source of anti oxidants, minerals, fiber

This is again a very common and a prevalent diet myth that raw fruits and vegetables should be avoided specially if you are taking chemotherapy as a treatment. Chemotherapy affects the total leukocyte component which is basically the immune system of a body. So, generally it is believed that if the TLC count is on a lower side the patient is more susceptible to catch secondary infections. So, you need to remove or restrict raw fruits and vegetables because people generally believe that consumption of these can lead to infections.

The right thing is that handling of these fruits and vegetables is more important as compared to removal. We need to wash these fruits and vegetables, handle them very hygienically and if properly handled well, these can be made into a regular diet plan of a cancer patient. Hygiene and sanitation is more important while handling these foods rather than complete abstinence. Fruits and vegetables are good sources of antioxidants, minerals and fiber and play a key role in maintenance of a good health status. Gluten , gluten is a protein which is found in wheat and its related products.

Over a period of time, it has been believed that eating gluten in whatever form can either lead to cancer or increase the chances of reoccurrence. Wheat is being consumed by humans almost more than 5000 years now. If someone is allergic to gluten that is he or she has been diagnosed with celiac disease or gluten enteropathy then definitely that person should avoid any form of gluten in their diet but again completely removal of gluten is neither advisable and I would recommend again to consult the dietician or your healthcare provider so as to get proper guidance as per the disease. 100% removal of gluten is not again advisable in patients who are taking treatment for cancer.

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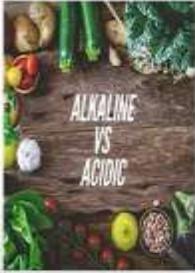


Wheat or the gluten protein, it is a staple food which is rich in vitamins and minerals like calcium, iron, magnesium and also an important contributor of fiber in the diet.

It is good and healthy source of energy, can be given in multiple forms and there are different forms of wheat also. So, we should not be scared of gluten, a proper medical advice should be taken care of before actually elimination of this protein.

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**ACIDIC DIET CAUSES CANCER ,
ALKALINE DIET TREATS CANCER**



- ▶ Blood pH (7.4) is tightly regulated by the kidneys and respiratory system. Any excess acid is excreted in the urine. Blood pH is not altered by dietary intake
- ▶ There is no scientific literature establishing the benefit of an alkaline diet for curing cancer
- ▶ The only situation in which blood pH is altered is during metabolic acidosis, when an individual is critically ill

It is also believed that acidic diet causes cancer and alkaline diet is more helpful for cancer patients. Generally what happens is that blood pH 7.4 is considered to be a normal blood pH.

This is tightly regulated by the kidneys and the respiratory system. Any excess acid is excreted in the urine. Blood pH is generally not altered by the food choices we make. There is currently no robust scientific literature establishing the benefits of an alkaline diet for curing cancer. Many people have reported that having an alkaline diet has many benefits, but still we need to have more conclusive evidences from the research.

The only situation in which blood pH is altered is during metabolic acidosis and at this point of time this person would be actually very ill and will be hospitalized. Removing the acidic foods and increasing the alkaline foods is not the key. It is encouraged, it is advised to have a balanced diet.

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Ketogenic diets are better for cancer patients

- ▶ The ketogenic diet is a low-carbohydrate diet
- ▶ The existing research is on animals and in brain tumours
- ▶ Human data is based on single cases and demonstrated weight loss, which may be a concern.
- ▶ A ketogenic diet can cause symptoms of constipation, diarrhoea and fatigue
- ▶ Adherence may be low due to palatability, and prolonged dietary restrictions

KETO DIET

The slide features a graphic on the left with the text 'KETO DIET' and an illustration of various fruits and vegetables. The background is a light green with a geometric pattern of overlapping shapes.

Ketogenic diets are better for cancer patients. Now ketogenic diets are extremely low in carbohydrate.

The existing research is generally on animals and in brain tumors. Human data is based on single cases and demonstrated weight loss, which may be a concern. On the other hand, ketogenic diet can cause symptoms of constipation, diarrhea and fatigue. A longer adherence may be low due to palatability and prolonged dietary restrictions. A patient who is taking treatment for cancer should be advised a balanced diet depending on the body's weight, the kind of medicines being given, whatever the blood test reports are.

These kinds of diet generally are not recommended for cancer patients because a patient can go into a stage of malnourishment.

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Avoid fat & haldi in Liver cancer



- ▶ Yellow foods are generally banned in jaundice
- ▶ Curcumin is natural antibiotic & anti-inflammatory
- ▶ Type of fat should be changed
- ▶ Boiled food has nutrient limitations

Now this is again a very common myth which is prevalent. Avoid fat and haldi in liver cancer. Generally in liver patients there are symptoms like yellowish discoloration of the eyes or the skin which makes the people believe that anything yellow which is consumed can increase this discoloration. But the fact is that the yellow discoloration of eyes and the skin is because of the bilirubin which is not being excreted from our system because the liver is affected and it is not because of any yellow coloured food.

Haldi is a yellow colored beautiful antioxidant provided by nature. It has good antioxidant and antibacterial properties and will actually help the patient to recover better. So it is not advisable to remove any yellow color fruit or vegetable or any spice from the diet of liver patients. It is also believed that a patient who's had jaundice, hepatitis or any form of liver cancer should be consuming boiled food.

This is completely not true. The type of fat has to be changed because liver has an important role in metabolization of fat, especially emulsification. So if emulsified fats are provided in the diet, then it is a good source of energy. The palatability of the food is also maintained. Just giving complete boiled food to the patient is not advisable. Again, if we are restricting fat, then the absorption of fat soluble vitamins like vitamin A, D, E, K is also compromised, which can further lead to malnutrition.

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Organic Food is better

- ▶ Organic foods - grown without harmful insecticides, pesticides
- ▶ No direct involvement in treating or preventing cancer



Again, there is a very growing notion that organic food is much better for cancer patients. Organic foods are those foods which are grown without harmful insecticides or pesticides. But current research has shown no direct involvement in treating or preventing cancer. We might end up paying huge amounts, huge costs for certain product which is labeled as organic. But we should be keeping our eyes open.

A balanced diet is much more beneficial for a cancer patients and just because the food is not organic and should not be given, thus practice should be discouraged. The next myth which we will discuss is that soya or its product can cause cancer. It is again a belief in many of us that eating soya can increase the chances of cancer because it is thought that soya has estrogen-like components which can increase the risk of cancers of the breast or endometrium.

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SOYA CAUSES CANCER



- ▶ Current evidence suggests that a diet containing naturally occurring isoflavones is safe
- ▶ Emerging evidence is suggesting that soy containing foods are associated with lower risk of overall cancer occurrence
- ▶ Soya foods can be used as part of a healthy balanced diet as a non-meat source of protein and provide fibre
- ▶ Great Source of protein and calcium
- ▶ It is currently not advised to take soy supplements

Current evidence suggests that a diet containing naturally occurring isoflavones is safe. Emerging evidence is suggesting that soya containing foods are associated with lowered risk of overall cancer occurrence.

Soya-based foods can be used as a part of a healthy balanced diet as a non-meat source of protein and it also provides fiber. It is a very good source of protein and calcium and also suitable for patients who are struggling with lactose intolerance. It is currently not advised to take any soya supplements.

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Dairy products may cause cancer

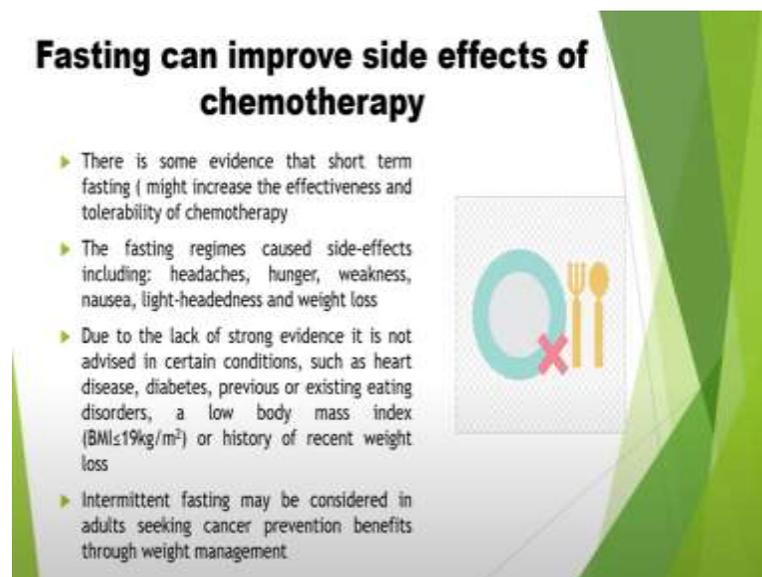


- ▶ No link between dairy containing diets and risk of cancer or promoting cancer growth as a result of hormones.
- ▶ There is evidence suggesting a protective role of dairy in the development of breast cancer through increased intake of calcium, vitamin D, butyrate, conjugated linoleic acid and lactoferrin
- ▶ Good source of calcium, protein

Next we will discuss that dairy products may cause cancer. This is also a very commonly prevalent dietary myth.

Research has proven that there currently is no very strong link between dairy containing diets and risk of cancer or promoting cancer growth as result of hormones. However, there is a very strong evidence suggesting a protective role of dairy in the development of certain cancers like breast cancer through increased intake of calcium, vitamin D, linoleic acid and lactoferrin. Dairy is again a good source of calcium, protein, vitamin A, D and is very helpful in maintenance of bone health. It is also recommended for postmenopausal ladies to include good amount of milk and its products to maintain and preserve their bone health.

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Fasting can improve side effects of chemotherapy

- ▶ There is some evidence that short term fasting (might increase the effectiveness and tolerability of chemotherapy
- ▶ The fasting regimes caused side-effects including: headaches, hunger, weakness, nausea, light-headedness and weight loss
- ▶ Due to the lack of strong evidence it is not advised in certain conditions, such as heart disease, diabetes, previous or existing eating disorders, a low body mass index ($BMI \leq 19 \text{kg/m}^2$) or history of recent weight loss
- ▶ Intermittent fasting may be considered in adults seeking cancer prevention benefits through weight management.



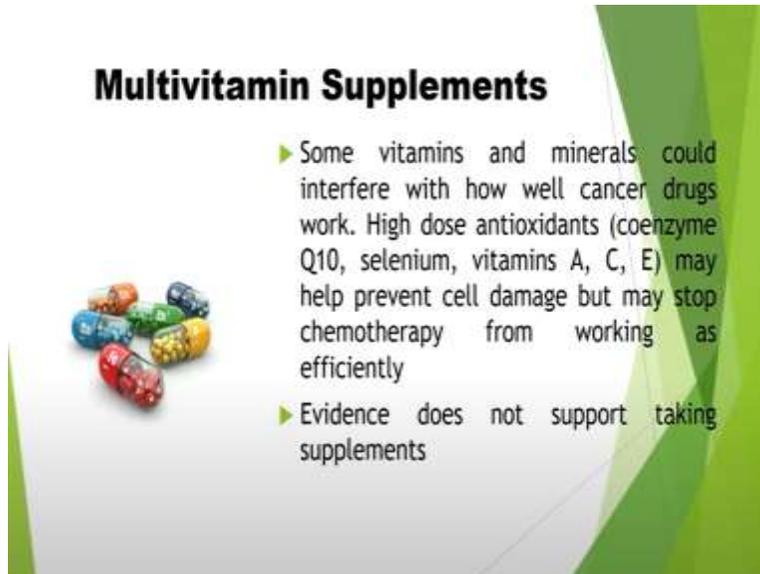
Next myth which we will discuss is fasting can improve side effects of chemotherapy.

Many people think that long hours of fasting can actually make a cancer cell die and will help in their treatment. There is some evidence that short term fasting may increase the effectiveness and tolerability of chemotherapy patients. If a patient is overweight, so fasting under medical supervision is recommended. The fasting regime has actually caused side effects including headaches, hunger, weakness, nausea and can lead to weight loss also. As we have already known that malnourishment is a very common form and it is very rampant in cancer patients.

So very long hours of fasting is generally not recommended in such patients. Due to lack of strong evidence, it is not advised in certain conditions such as heart diseases, diabetes, eating disorders or a history of recent involuntary weight loss. Intermittent fasting may be

considered in adults seeking cancer prevention benefits through weight management. In our earlier classes, we had discussed that how obesity can actually increase the risk of cancer. So if we use fasting as a method for weight reduction, then definitely it can have a short term benefit.

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Multivitamin Supplements

- ▶ Some vitamins and minerals could interfere with how well cancer drugs work. High dose antioxidants (coenzyme Q10, selenium, vitamins A, C, E) may help prevent cell damage but may stop chemotherapy from working as efficiently
- ▶ Evidence does not support taking supplements

Multivitamin supplements. Some vitamins and minerals could interfere with how well cancer drugs work. It is recommended that the daily dose of required vitamins, minerals and antioxidants should be taken up from natural sources like garlic, turmeric, ginger, different colors of fruits and vegetables. Dependency on multivitamin supplements, the evidence does not taking the support for our requirements. So, it is recommended that our requirement of multiple vitamins and minerals should be from natural sources as compared to supplements.

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SUPER FOODS OR SUPER HYPE



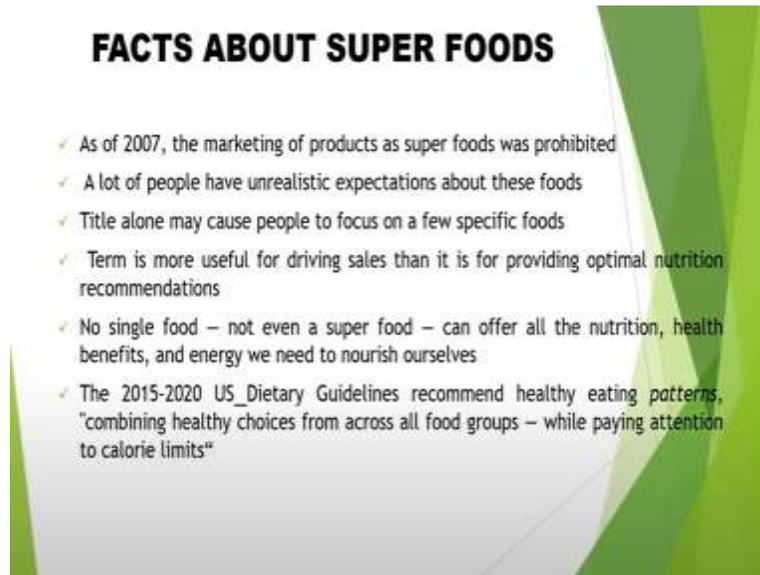
- ▶ Super food is a "marketing" term for food claimed to confer health benefits resulting from an exceptional nutrient density
- ▶ Not commonly used by experts, dietitians and nutritionists
- ▶ There's actually no formal or universal agreement on what actually counts as a super food
- ▶ Even without scientific evidence many new, exotic, and foreign fruits or ancient grains are marketed under the term after being introduced or re-introduced to Western markets
- ▶ According to Cancer Research UK, "the term 'superfood' is really just a marketing tool, with little scientific basis to it"

Superfoods or super hype now there is a fashion that many people have started moving towards the concept of superfoods because it is believed that these foods will do some magic and the patient will be absolutely fit and fine.

Superfood on the contrary is actually a marketing term for food claimed to confer health benefits resulting from an exceptional nutrient density. This term is generally not used by health experts, dietitians and nutritionists. There is actually no formal or universal agreement on what actually counts as a superfood. Even without scientific evidence, many new exotic and foreign fruits or ancient grains like millets are marketed under the term after being introduced or reintroduced to the western markets. According to the Cancer Research UK, the term superfood is really just a marketing tool with little or scientific basis to it.

One more side effect of consuming superfood is that the basic concentration of a person, one more side effect of consuming superfoods is that the concentration of a patient is shifted towards only that particular food and he or she will not be taking other components of a balanced diet which can again lead to malnourishment.

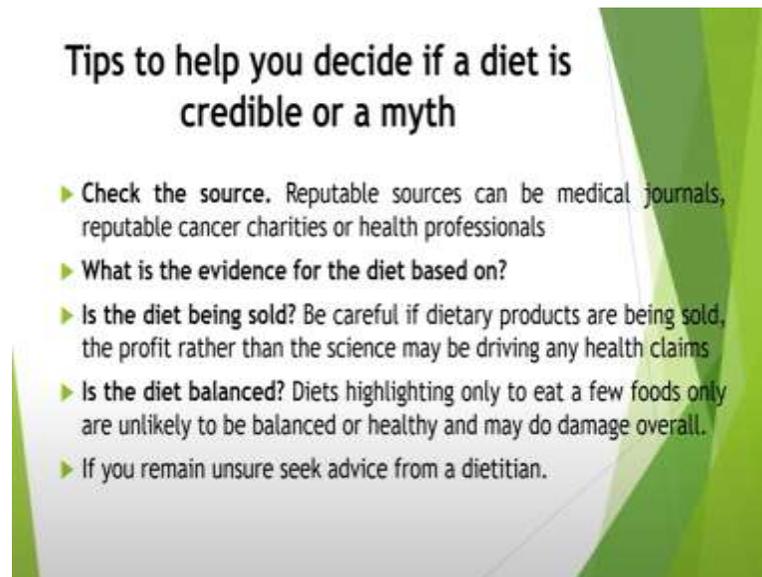
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Some facts about superfoods I would like to share with you all. As of 2007, the marketing of products as superfoods was prohibited, especially in the US and European countries. A lot of people have unrealistic expectation about these foods because majority of them think that this is like a magic pill for them. The title alone may cause people to focus on a few specific food and leading to malnourishment because then they will not be able to take the benefits of other foods.

This term is more useful for driving sales than it is for providing optimal nutrition recommendations. No single food, not even a so-called superfood, can offer all the nutrition, health benefits and energy we need to nourish ourselves. That is why the concept of balanced diet has to be encouraged. The 2015 to 2020 US Dietary Guidelines recommend healthy eating patterns, combining healthy choices from all across the food groups while paying attention to calorie limits.

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Few tips to help you decide if a diet is credible or a myth.

Check the source. Do not depend on any information which is coming from different sources till the time you check it from a trusted source. Reputable sources can be medical journals, reputable cancer charities or health professionals. Please check what is the evidence for the diet based on. These days, anyone and everyone can actually give you a dietary advice. Is the diet being sold? This is very important to check on.

Be careful if the dietary products are just being sold for the profit rather than the science may be driving any health claims. Please check that whether the diet which is being recommended is it actually a balanced diet or not. Diets highlighting only to eat a few foods are unlikely to be balanced or healthy and may do damage overall. If you still remain unsure, seek advice from a dietitian or a healthcare expert.

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FOOD LABELS

- Food labels provide more than just nutrition facts, though.
- Ingredients
- Nutritional Information
- Whether the food is organic, and certain health claims



Food labels. These can be sometimes misleading. Why, certain companies they promote their products keeping in mind one single benefit if they are promoting for example fiber they might highlight this on their package saying it's a high fiber food but in one quantity fiber is required is the serving size matching that particular quantity these are few questions you should ponder upon food labels provide more than just nutrition facts. You should check for ingredients which are mentioned on the pack. You should also check for the nutritional information which is there on the pack. You should not be carried away by the health claims which are made by the companies.

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What You need to Check

- ✓ Don't Let the Claims on the Front Fool You
- ✓ Study the Ingredients List
- ✓ Watch out for Serving Sizes
- ✓ Different Names for Sugar
- ✓ Expiry date

What you need to check on a food label? Don't let the claims on the front fool you.

For example, it's a sugar-free product, it's a fat-free product. Think before you buy anything. Study the ingredient list, watch out for the serving sizes. There could be different names of sugar which can be misleading. An expiry date is definitely one important thing to look out for.

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TAKE HOME MESSAGE

- ▶ Knowledge in nutrition is an important tool in tackling misinformation and in the promotion of adequate food choices.
- ▶ The main goal of numerous food education programs is to improve nutritional knowledge, contributing to the establishment and maintenance of healthy, balanced, and varied eating habits
- ▶ According to the Global Burden of Disease report, from 2017, inadequate food habits are responsible for 11 million deaths every year, from which the main cause of death are diseases intrinsically linked to maladjusted eating behaviors.
- ▶ Nutrition has assumed a prominent role in the prevention, control, treatment, and even regression of several pathologies that are influenced by eating habits and behaviors

What is the take home message from today's session? Knowledge in nutrition is an important tool in tackling misinformation and in the promotion of adequate food choices. The main goal of numerous food education programs is to improve nutritional knowledge, contributing to the establishment and maintenance of healthy, balanced and varied eating habits. According to the Global Burden of Diseases report from 2017, inadequate food habits are responsible for 11 million deaths every year, from which the main cause of death are diseases, which are intrinsically linked to maladjusted eating behaviours. Nutrition has assumed a prominent role in the prevention, control, treatment and even regression of several pathologies that are influenced by eating behaviors and habits. So with this session, I am sure that many of the myths were busted, proper information has been passed and the adherence will be to these facts. Thank you.