

## **Introduction to Maternal Infant Young Children Nutrition**

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**Lecture - 54**

**Session - 11**

### **Nutritious Vegetarian and Non-Vegetarian Recipes for Lactating Mothers**

Hello everyone. So, now I am going to discuss about lactation nutrition. So, in this like a mother who is lactating, her nutrition is as important as breastfeeding, because she is she is producing so much milk with our proper techniques of breastfeeding, she is waking up every hour or 2, she is using lot of her energy, so we want to make sure that she gets a good amount of nutrient dense food in her diet. And, in this tutorial we have shown what is the requirement for protein and energy and, what kind of food that we recommend. Of course, in this we have added some galactagogues.

Now, in my personal opinion, if you ask me, if you start actually teaching mother proper technique to breastfeeding and if babies able to completely emptying those breasts, even if mother was say slightly undernourished, baby who was growing leaps and bounds, so they grow pretty well, they are like parasite.

So, just of course focus on protein and other nutrients which are required for mothers, lactation, we have, again, even in non veg recipes, we have added some galactagogues some of the galactagogues, like moringa powder, methi, those definitely has some effect, but as I said, tell mothers that even if she does not have any galactagogues she will have beautiful baby as long as she focuses on the technique and emptying, complete emptying of breast. So, more she empties more milk she will get, . So, that is important.

Another thing about lactation nutrition is many times, mothers asked if she can have Shatavari powder, if she can have that powder or she can have this powder. Normally I do not, kind of in the beginning I am not too negative about it, because whatever the culture is, I am in that is, but what I tried to bring that focus on is on latching, latching and complete emptying, so just, you can slowly then once baby starts gaining weight, or you can tell them that you can stop Shatavari or whatever powder and she can just focus on the proper latching and then have a relaxation, that relaxation is really really important for the mothers. So, that is it enjoy our tutorial, thank you.

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## Vegetarian Recipes for Lactating Mothers

Spoken Tutorial Project

<http://spoken-tutorial.org/series>

YouTube Channel: Health Spoken Tutorial - IIT Bombay

Script and Narration: S. J. Monika

Graphics and Animation: Arthi Anbalagan



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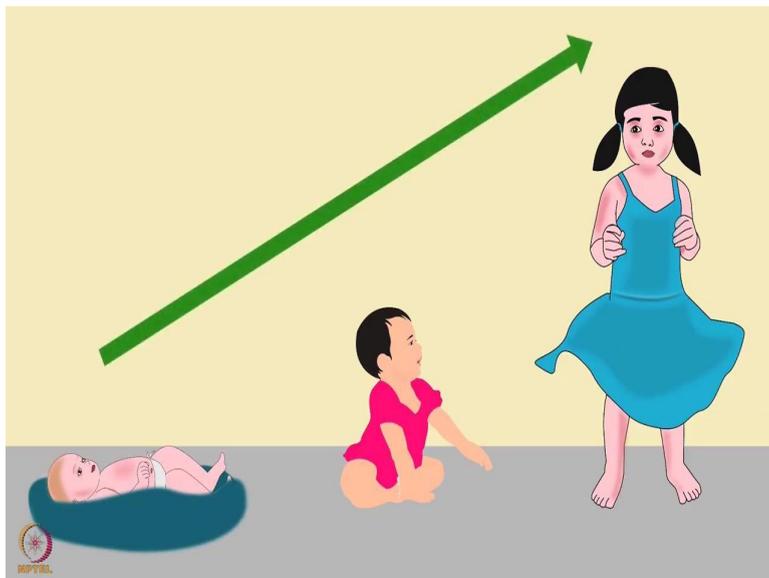
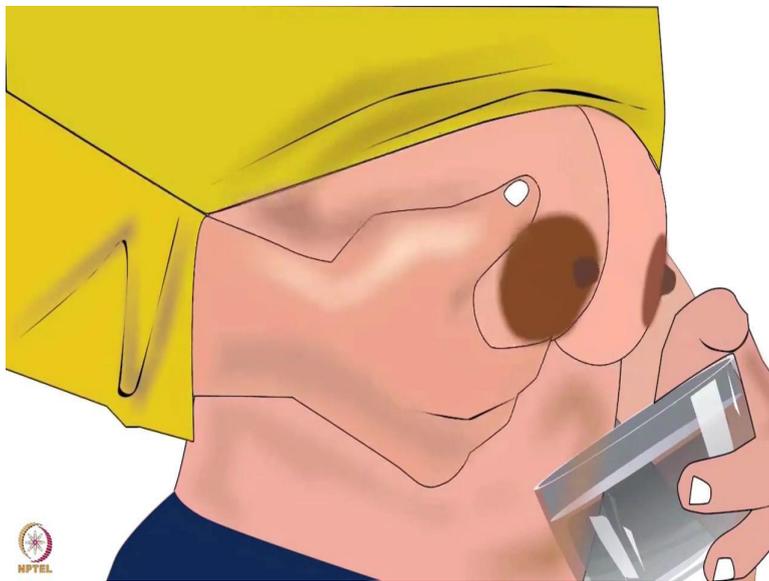


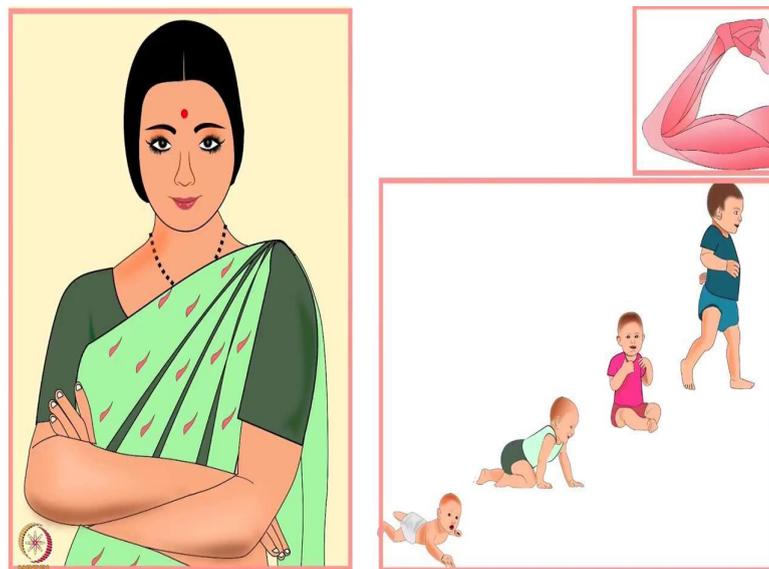


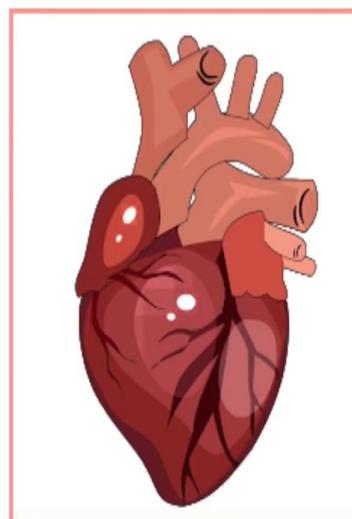
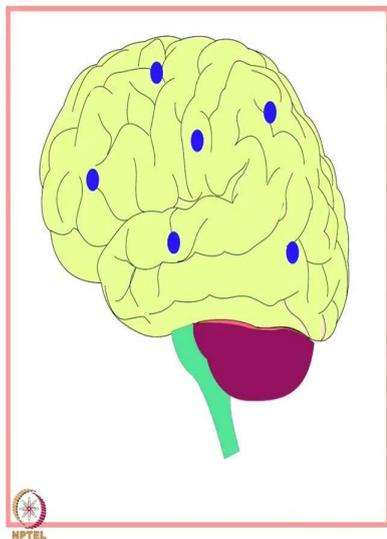
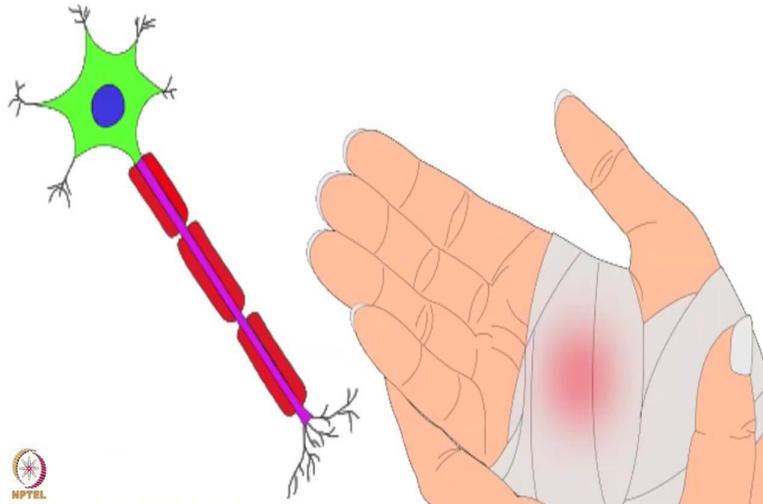
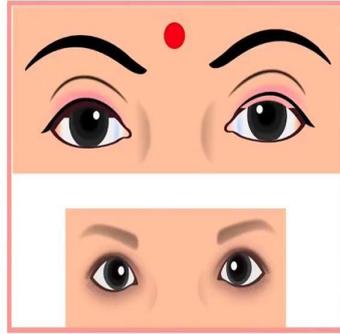
Narrator S.J Monika: Welcome to spoken tutorial on vegetarian recipes for lactating mothers. In this tutorial, we will learn about importance of nutrition during lactation. Preparation of vegetarian recipes, such as mix sprouts chela, garlic flaxseed and sesame chutney, peanuts, spinach and fenugreek cutlet, pearl millet and amaranth leaves muthiya, sprouted fenugreek seeds curry.

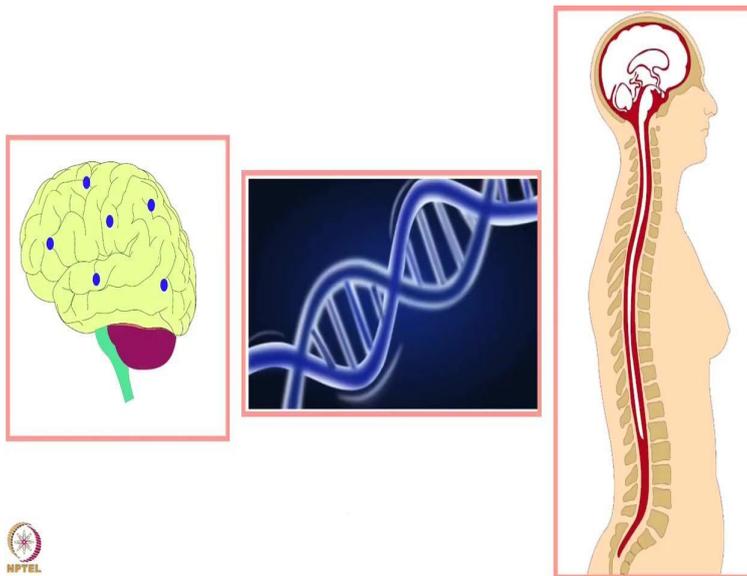
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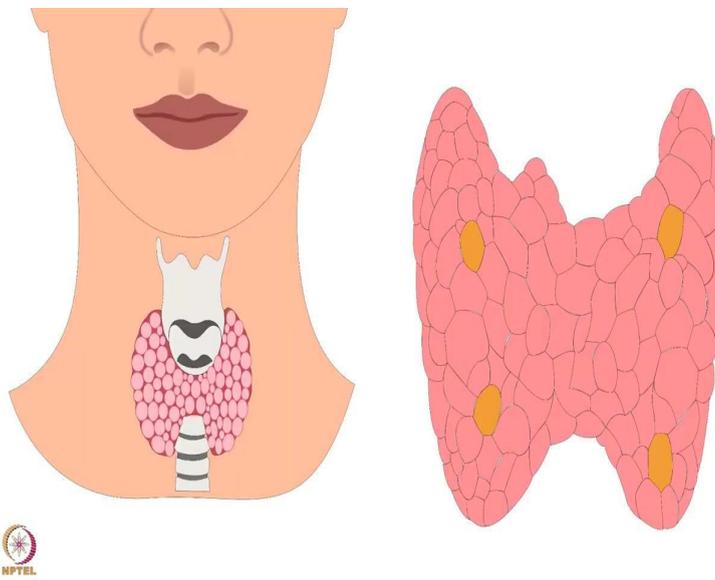
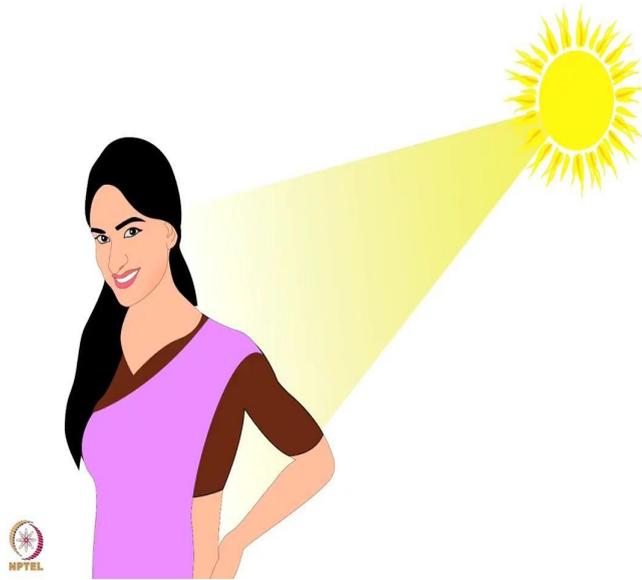


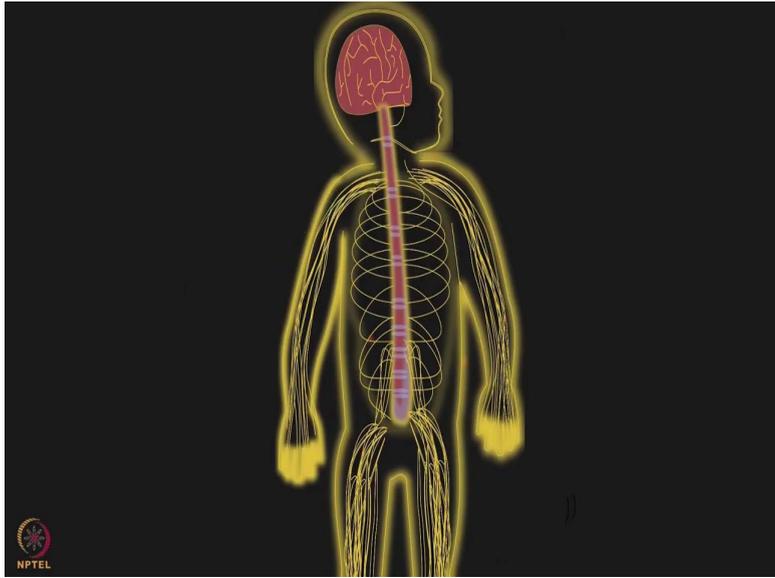


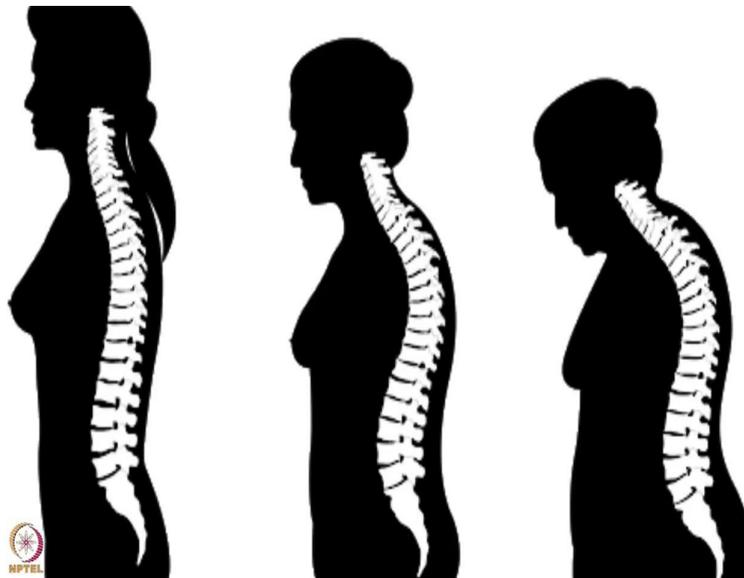
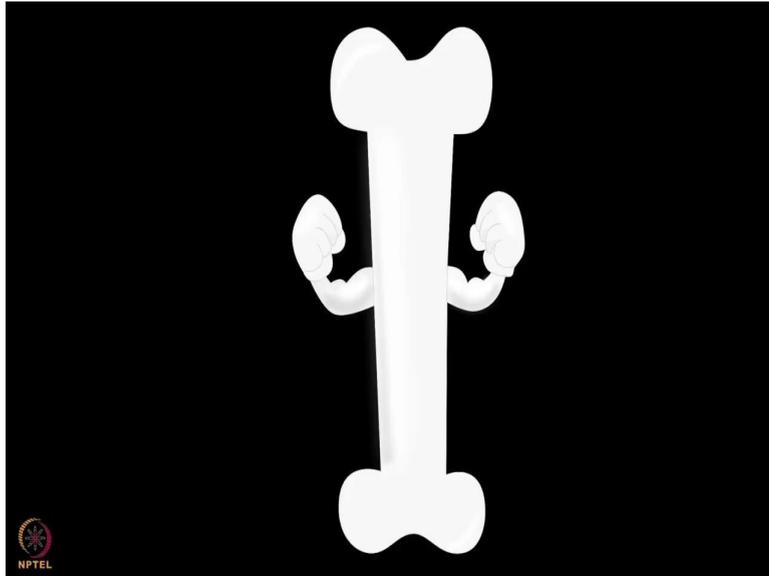
During lactation a mother requires additional amount of nutrition for milk production to provide enough nutrients for the growing infant and to maintain mother's own health. Essential nutrients required during lactation are protein, vitamins, minerals, omega 3 fatty acids, and choline.

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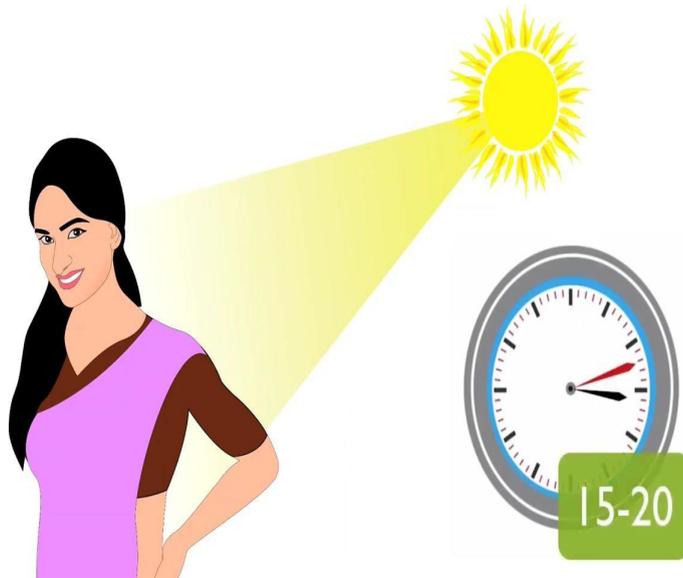
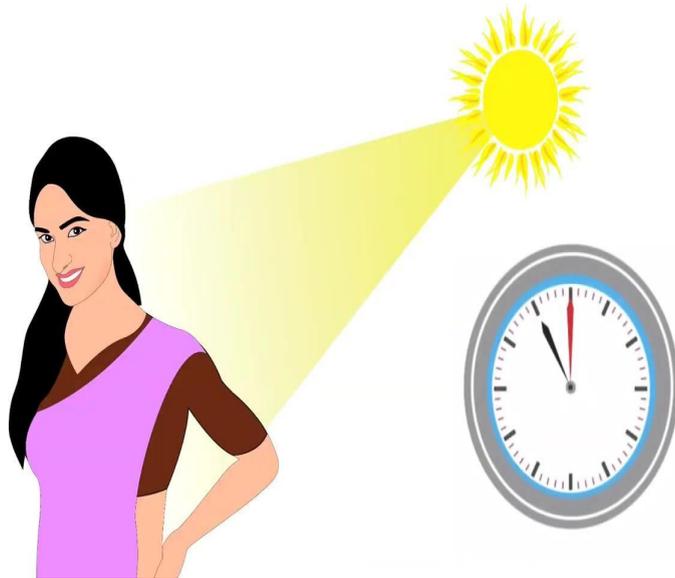
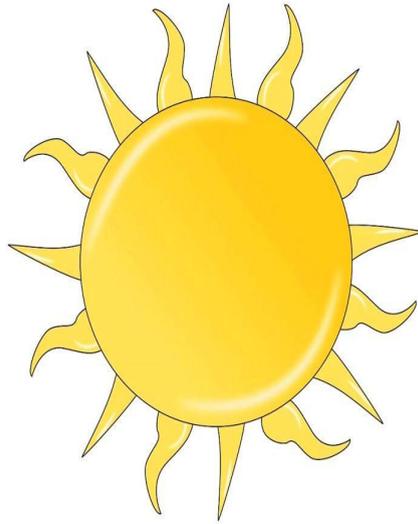






Additionally, sufficient iodine and vitamin D intake is also essential because iodine helps in the making of thyroid hormones, and growth and neurological development of infant hence it is recommended to include iodized salt daily to prevent iodine deficiency. Similarly, Vitamin D is essential for healthy bones and calcium absorption.

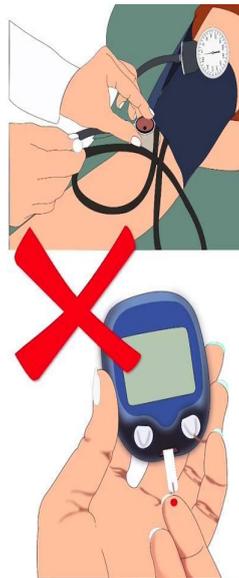
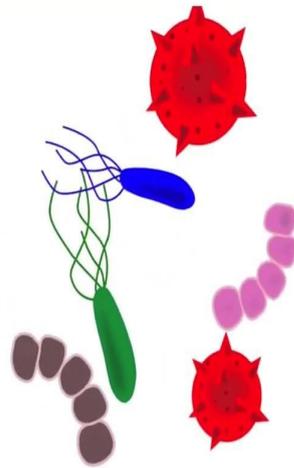
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The best way to obtain vitamin D is exposure to sunlight between 11am to 3pm for 15 to 20 minutes.

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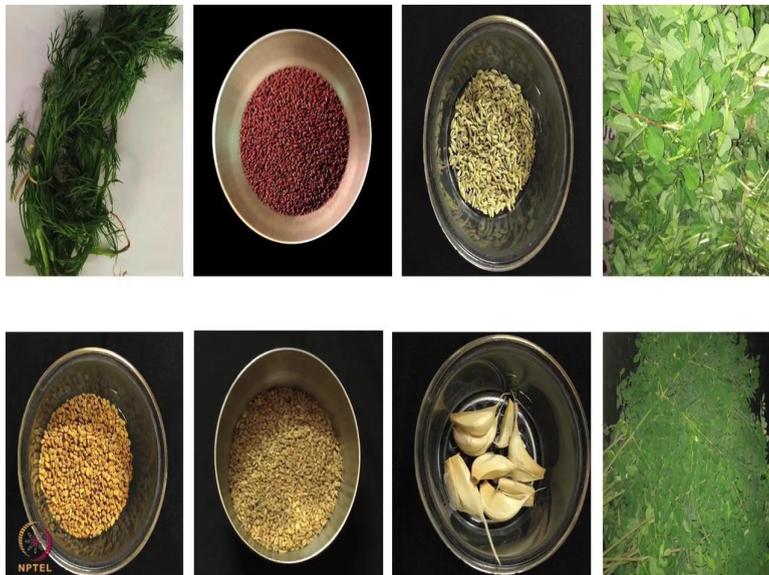


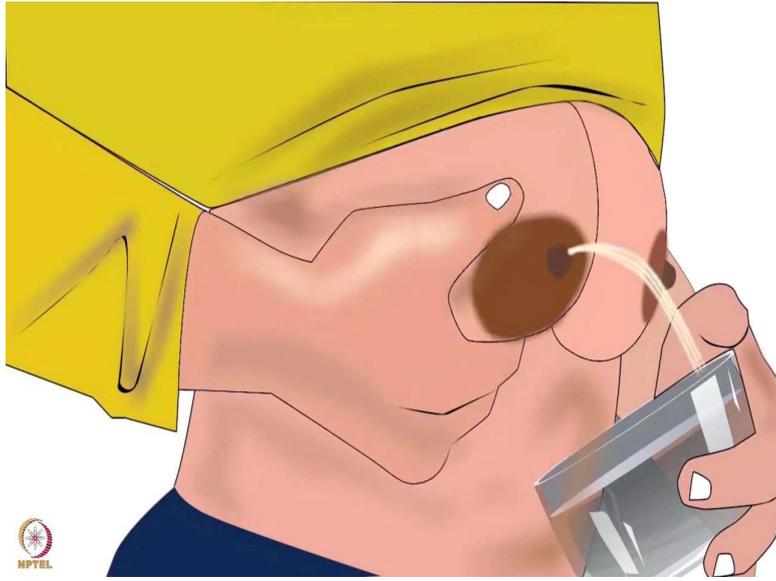




After essential nutrients we will now discuss about mother's diet. It is highly recommended to include different vegetables daily. Vegetables contain essential nutrients that help in building immunity. They are also good sources of antioxidants and they reduce the risk of diseases, although all types of vegetables should be eaten, over here we will discuss a few only, such as capsicum, spinach, cabbage, cauliflower, amaranth, pumpkin, carrot, fenugreek leaves, and brinjal.

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Besides vegetables, we will learn about galactagogues, galactagogues are substances that help in milk production. Mother can get it from diet by including garlic, fenugreek seeds and leaves, fennel seeds, garden cress seeds, drumstick leaves, dill leaves and carom seeds.

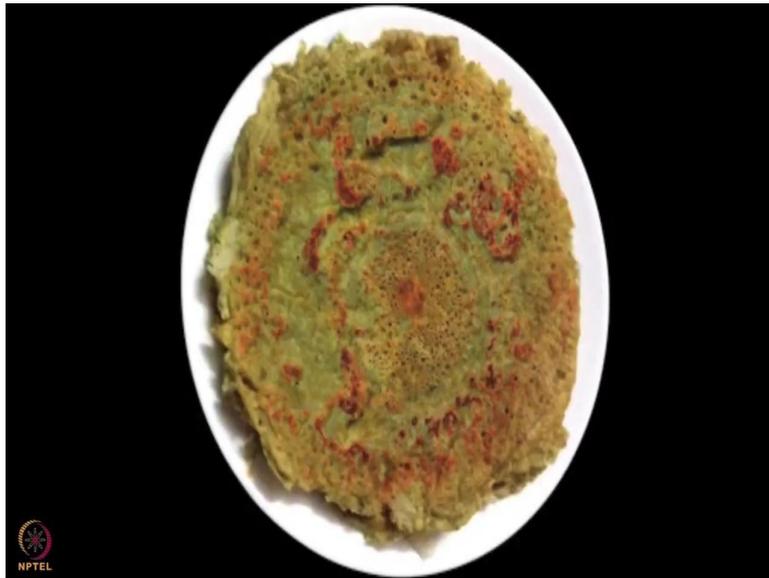
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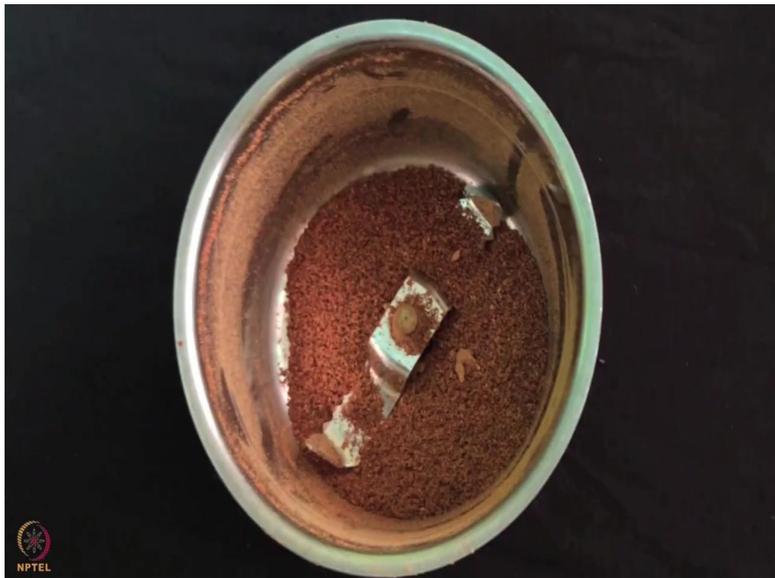
Other than vegetables and galactagogues. Mother should drink 2 to 3 liters of water daily. She should have a glass of boiled and cold water before every feed. After learning all that is important for lactating mother we will start with the preparation of recipes.

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To prepare garden cress seeds powder roast one tablespoon of seeds on low to medium heat till they change color, allow the seeds to cool. Now, grind them into a powder on a stone grinder or a mixer.

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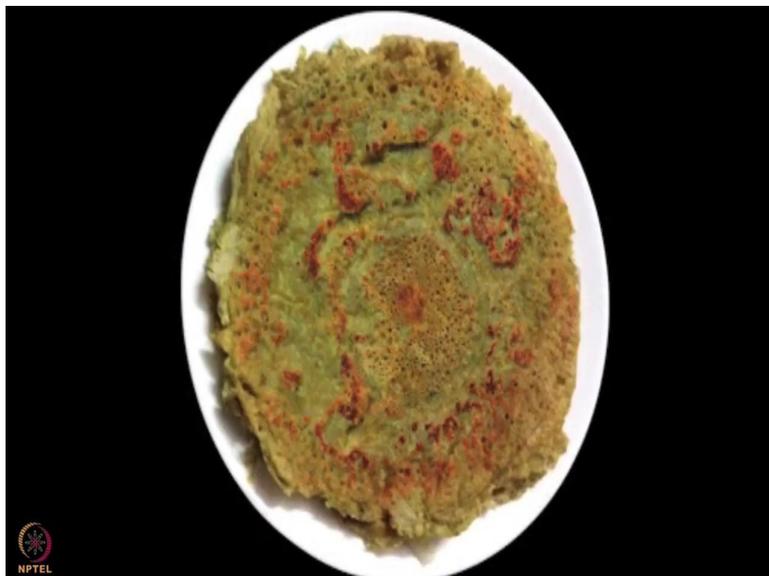




To make sprouts, soak green gram, bengal gram and moth beans overnight separately. Drain it in the morning and tie them in a clean muslin cloth. Leave them in a warm place to germinate for 2 days. Please note moth beans may take longer time to germinate compared to green gram and bengal gram, so plan your recipe accordingly. After the sprouts are ready, make a paste of sprouts, garlic, chilies, curd on a stone grinder or mixer. Now, add gram flour and water and mix it well. To this mixture add chopped onion, salt, curry leaves powder and garden cress seeds powder.

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After all this preparation is done. Heat one teaspoon ghee in a pan, pour the mixture and spread it. Cook the chela on medium heat until both sides are cooked. The mix sprouts chela is ready.

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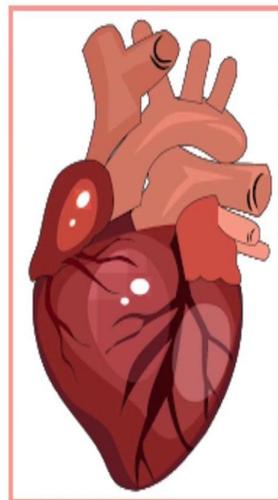
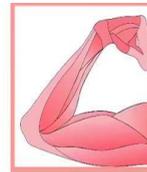


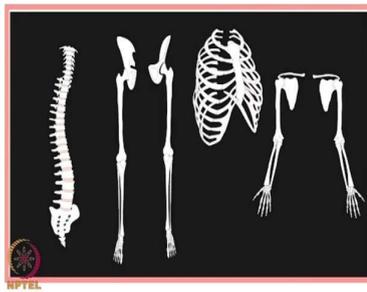
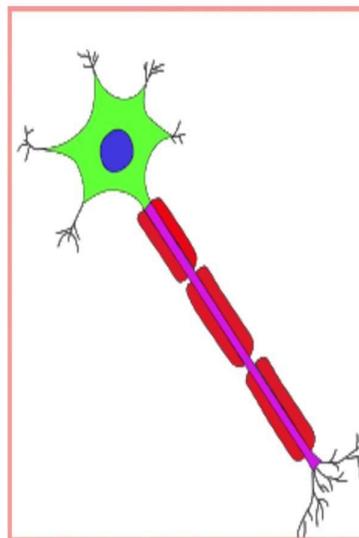
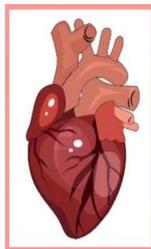
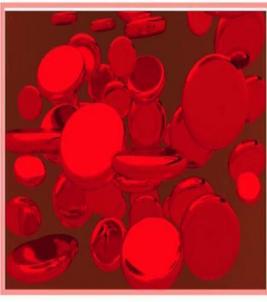
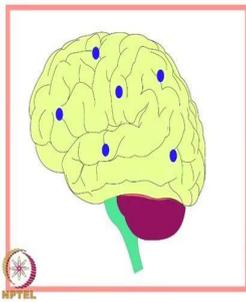
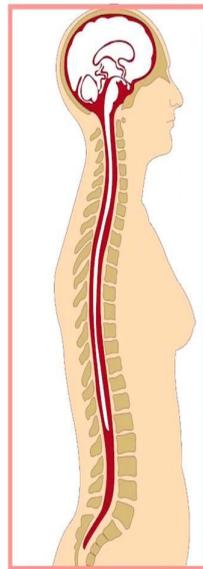
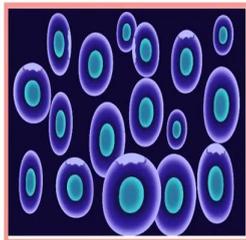
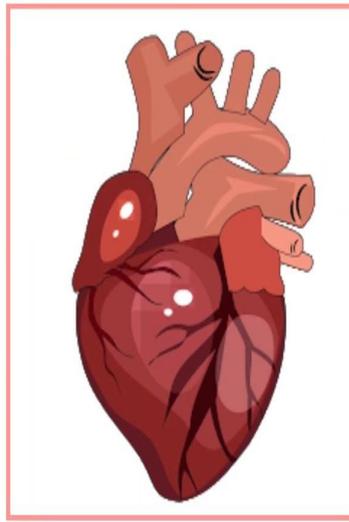
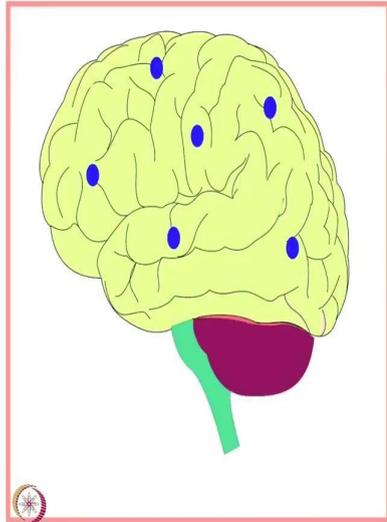


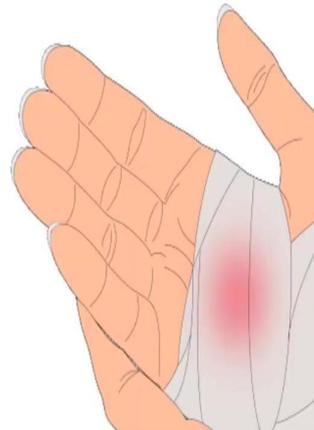
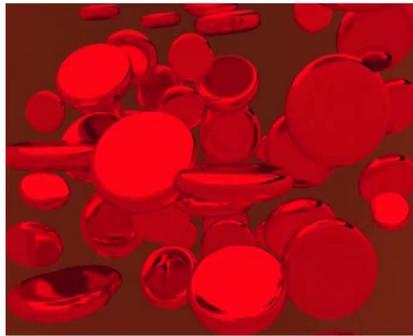
In case the pulses mentioned in this recipe are not available. Then you may use black eyed beans, chickpeas, horse gram, soya bean, whole red lentil and kidney beans.

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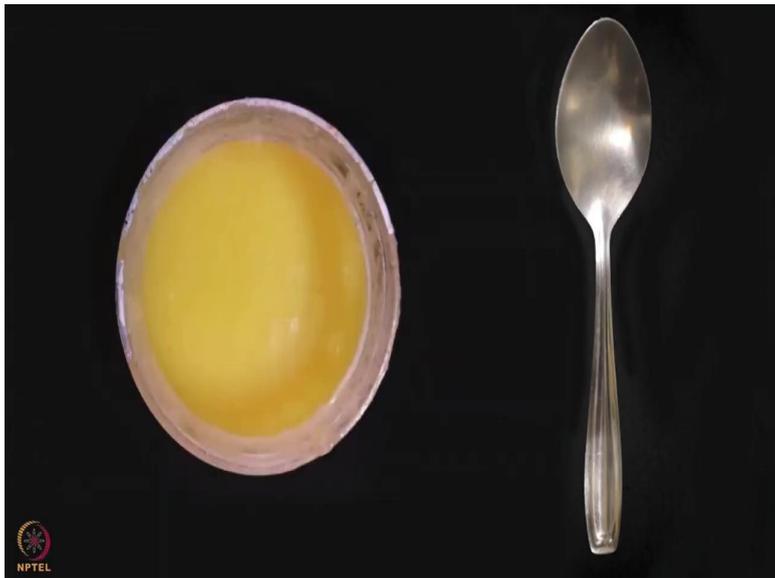




Please note duration of sprouting depends upon the type of the pulse and weather conditions.  
This recipe is rich in protein, fiber, omega 3 fatty acids, folate, magnesium, zinc.

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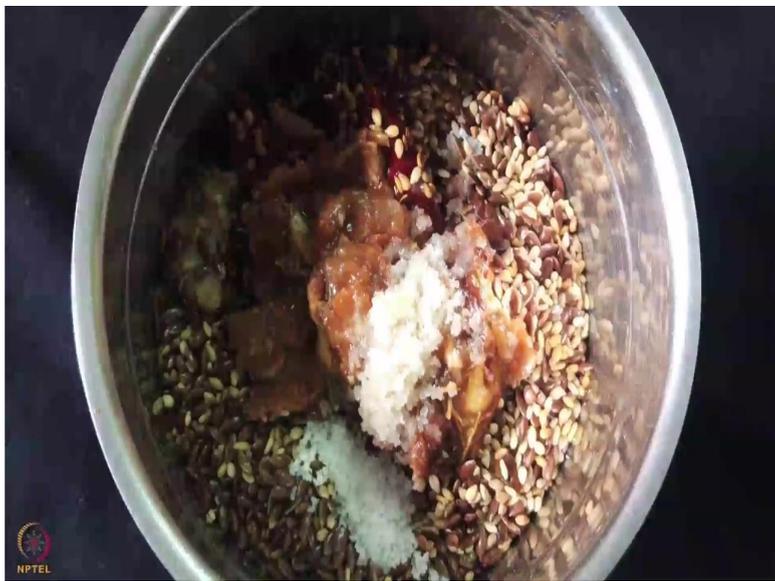




The second recipe is garlic, flaxseed and sesame chutney. To prepare it we need 3 tablespoons of flaxseed, 3 tablespoons of sesame seeds, 5 garlic cloves, 4 red chilies, 5 to 6 pieces of soaked tamarind, salt to taste, half teaspoon oil or ghee.

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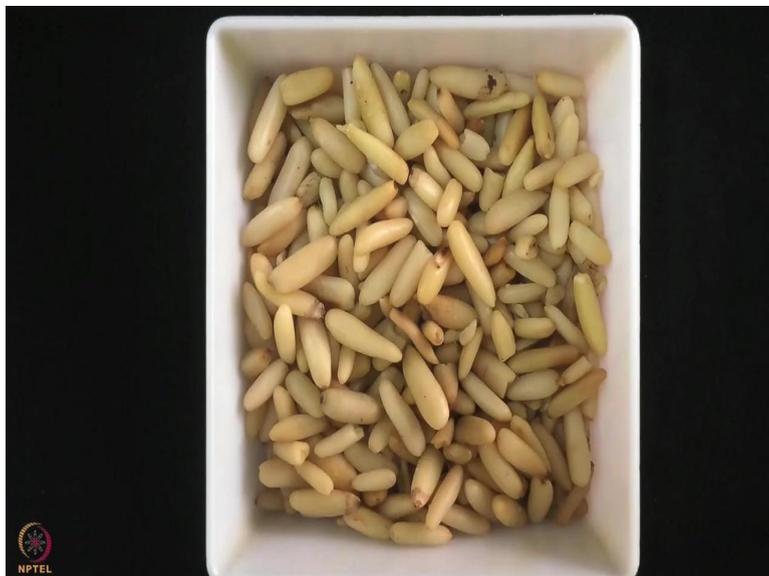


First roast sesame and flaxseed separately allowed the seeds to cool. Next, heat half teaspoon oil in a pan and fry garlic and red chili for 2 minutes. After cooling, mix this with the seeds add tamarind and salt to it. Make a paste on a stone grinder or a mixer by adding water. chutney is ready.

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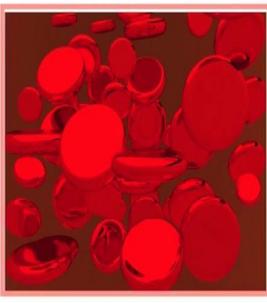
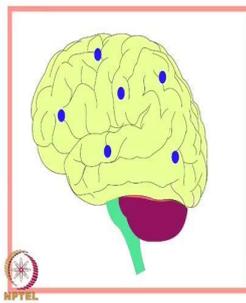
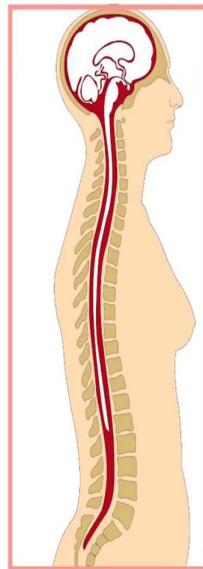
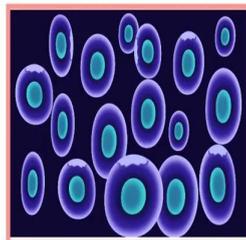
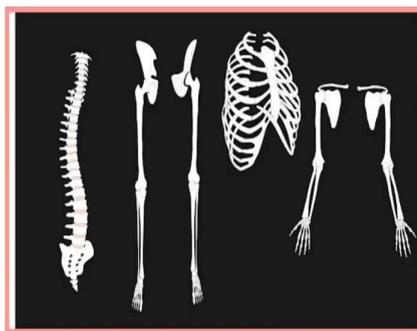
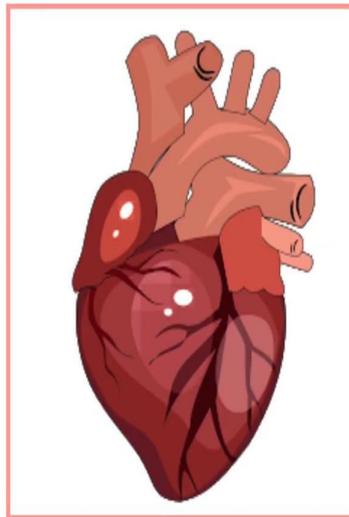
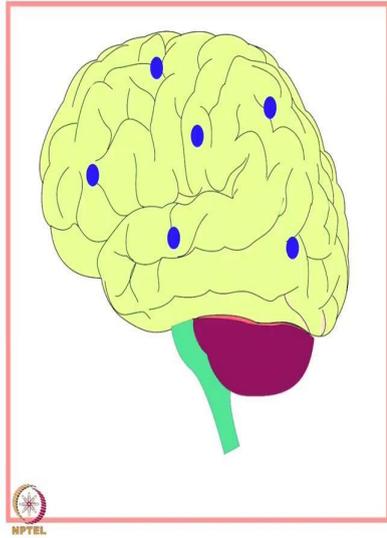


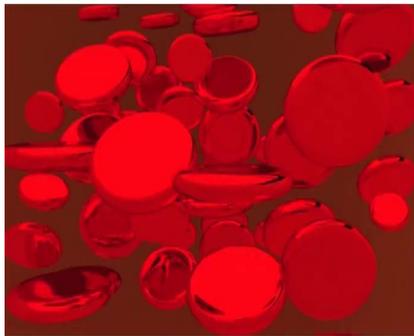
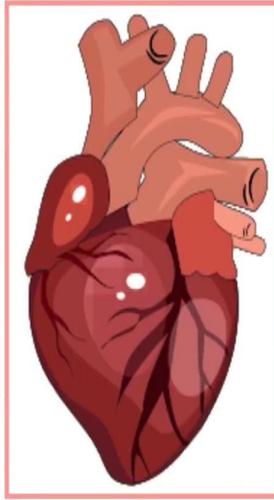
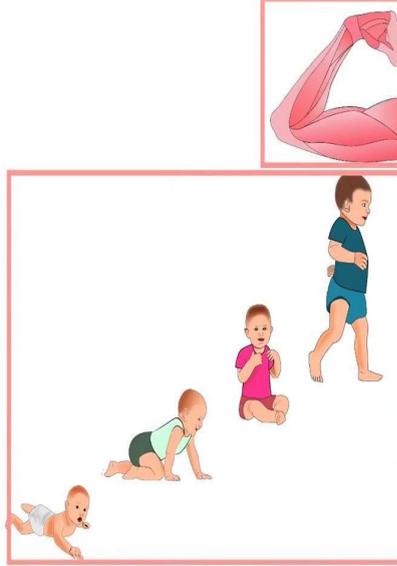




In case sesame seeds are not available. You can also use one or a combination of the following shredded coconut, peanuts, black sesame seeds, pumpkin seeds, sunflower seeds.

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This recipe is rich in omega 3 fatty acids calcium, folate, protein, fiber, zinc.

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The third recipe which we will learn to make is peanut spinach and fenugreek cutlet. To prepare the cutlets we need half cup peanut powder, 2 tablespoons gram flour, 2 tablespoons wheat flour, half cup spinach chopped, one fourth cup fenugreek leaves chopped, one tablespoon coriander leaves, one teaspoon red chili powder, salt to taste, one teaspoon seeds powder. You can use a combination of sesame or flax seeds. One tablespoon lemon juice, one teaspoon garlic paste, 4 spoons oil.

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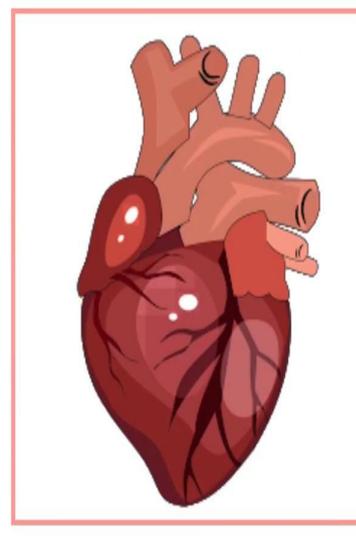
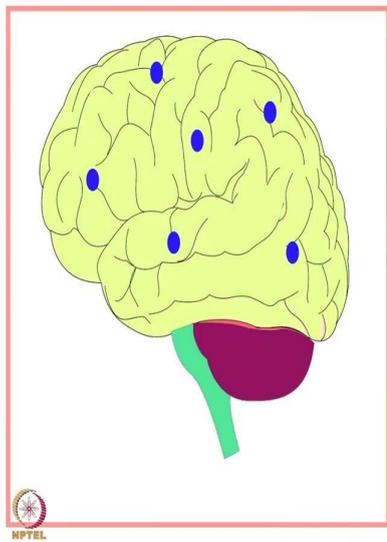
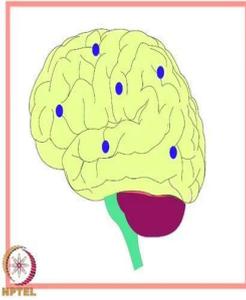
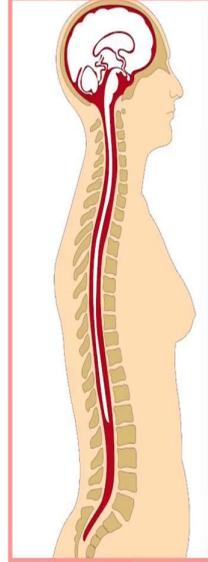
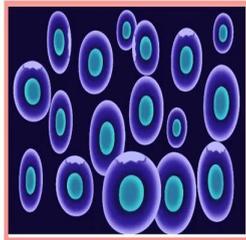
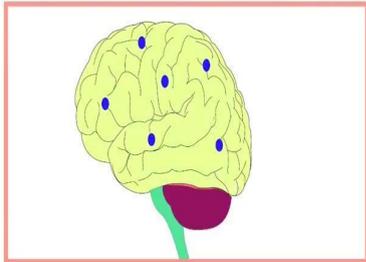
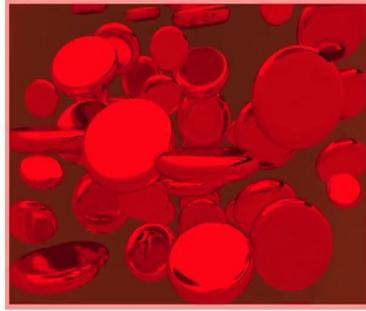
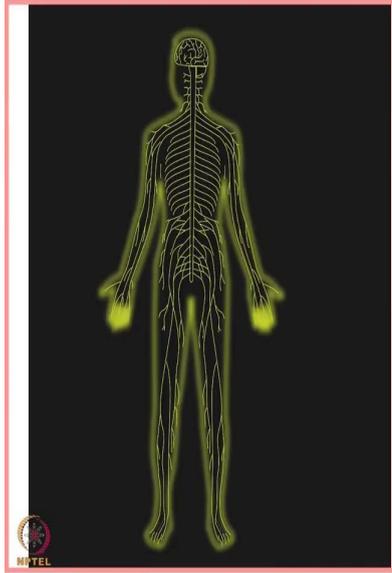
To make peanut powder, roast half cup peanuts in a pan till they change color and aroma released. Allow them to cool, then rub them in between your palms to remove the outer covering. Grind them on a stone grinder or a mixer to a fine powder. Now, add peanut powder and all the other ingredients in a bowl. Using little water make a dough out of it. Divide the dough into 4 portions and shape it into cutlets.

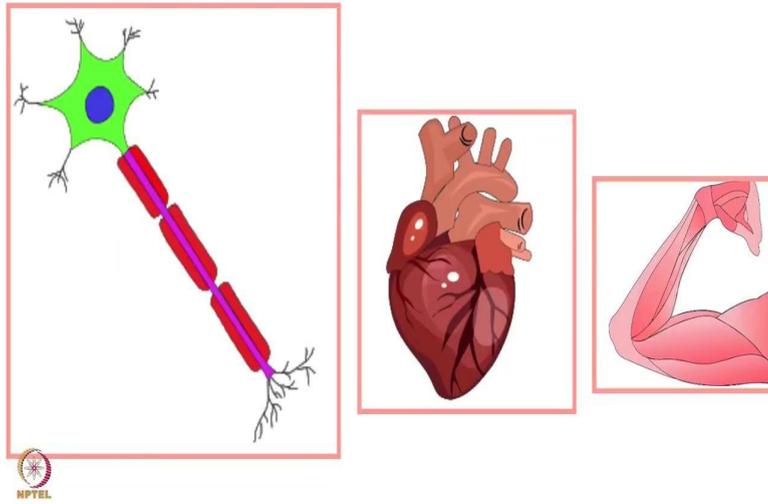
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This cutlets recipe is rich in protein, iron, folate, good fats and potassium.

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The fourth recipe is pearl millet and amaranth muthiya. To prepare this we need half cup pearl millet flour, one small onion, half cup amaranth leaves, half teaspoon turmeric powder, salt as per taste. One fourth teaspoon drumstick leaves powder, one teaspoon red chili powder, half spoon mustard seeds, half spoon cumin seeds, 2 teaspoon sesame seeds one teaspoon oil.

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In a bowl take the flour, onion and amaranth leaves now add turmeric powder, lemon juice and drumstick leaves powder, mix them well need a dough out of it by adding water little by little apply a little oil on your hands and divide dough into small portions. Shape the portions into cylindrical rolls. Steam the rolls in a steamer for 10 to 15 minutes on low to medium heat. Let the rolls cool and then cut them into circular pieces.

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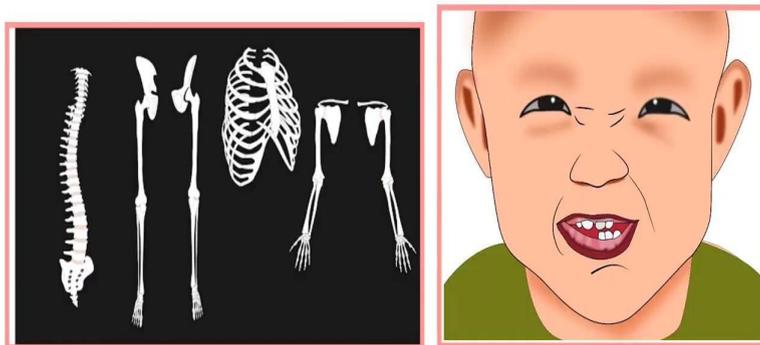
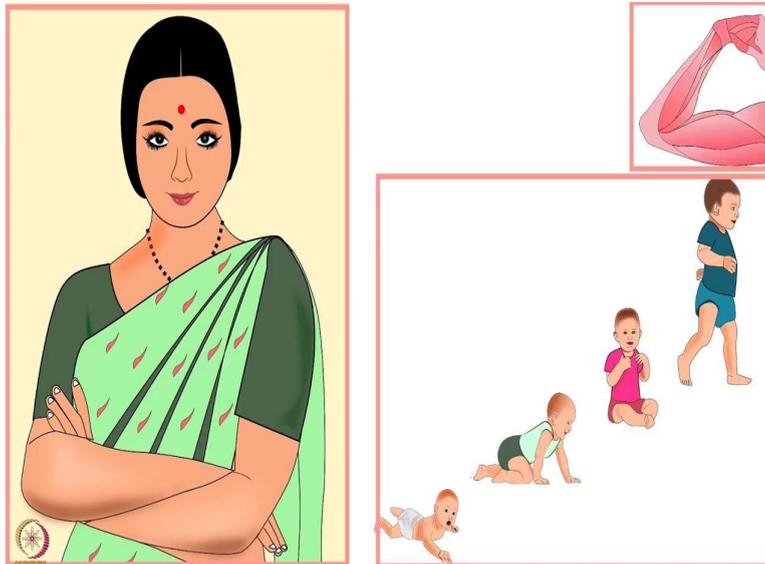
Now, heat one teaspoon oil in a pan add mustard seeds, sesame seeds and cumin seeds once they crackle add the muthiya pieces, sauté the pieces till crisp. The pearl millet and amaranth leaves muthiya is ready.

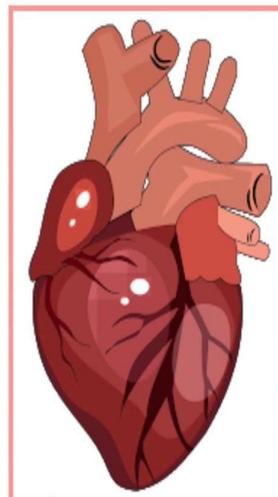
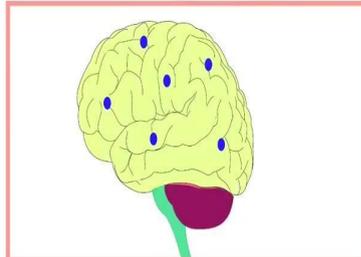
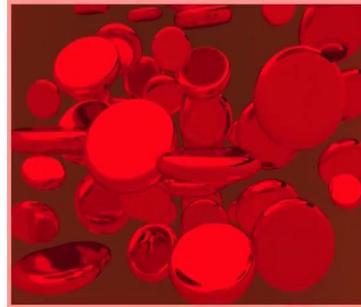
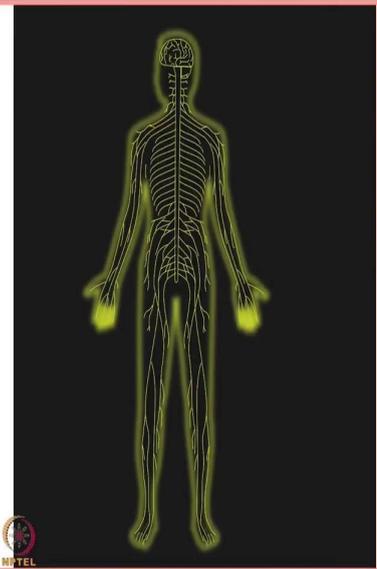
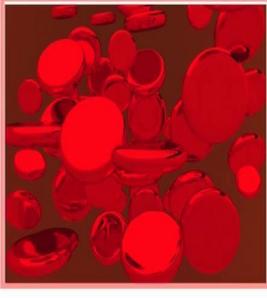
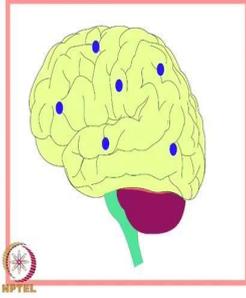
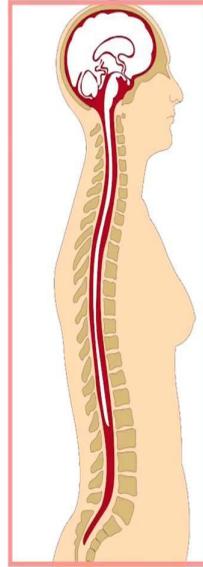
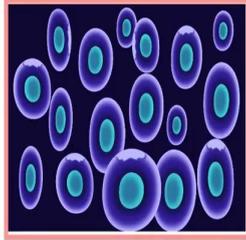
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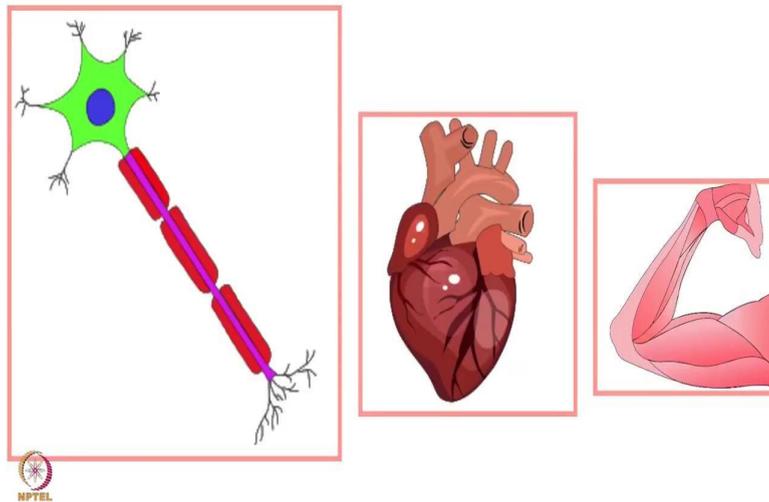
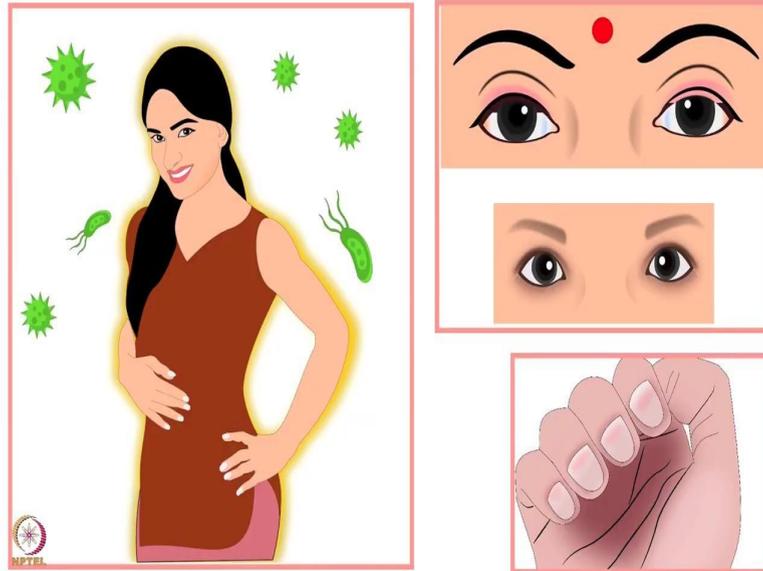


In case pearl millet is not available. You can also use sorghum flour or finger millet flour.

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This recipe is rich in protein, phosphorus, folate, iron, fiber, beta carotene, and potassium.  
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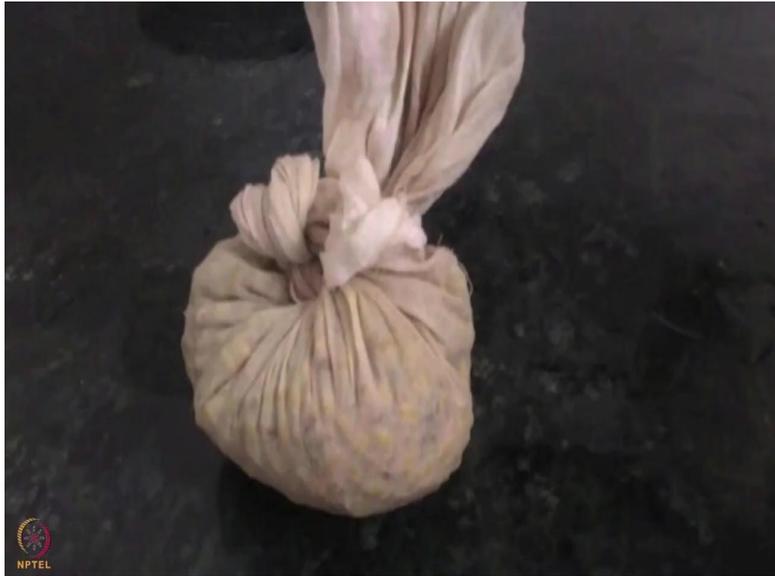


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The last recipe we will see is sprouted fenugreek seeds curry. To prepare this we need one cup sprouted fenugreek seeds, one medium onion, one tomato salt to taste one teaspoon chili powder, half teaspoon turmeric powder, one teaspoon lemon juice, one teaspoon mustard and cumin, one teaspoon oil.

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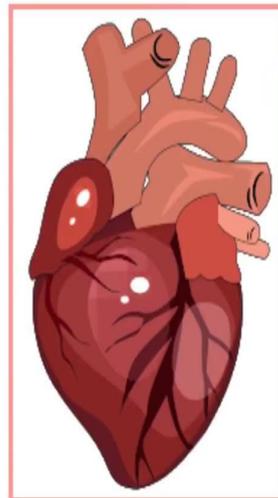
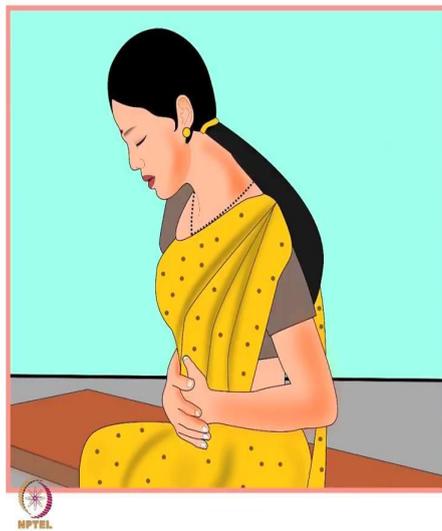
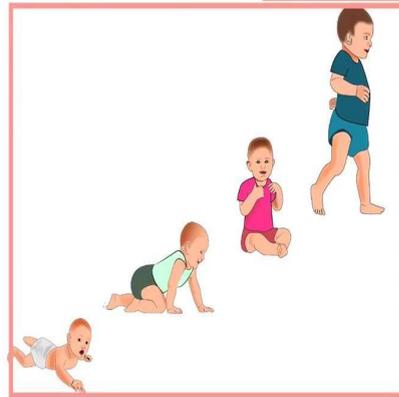
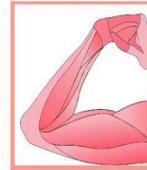


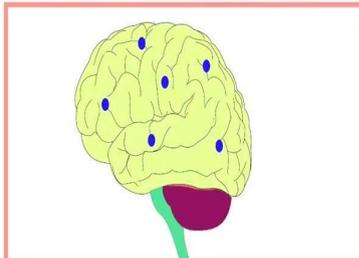
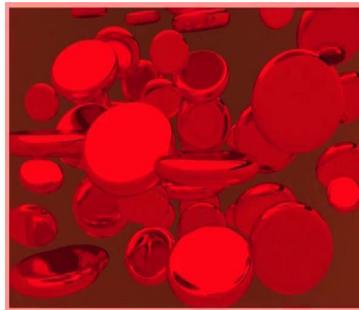
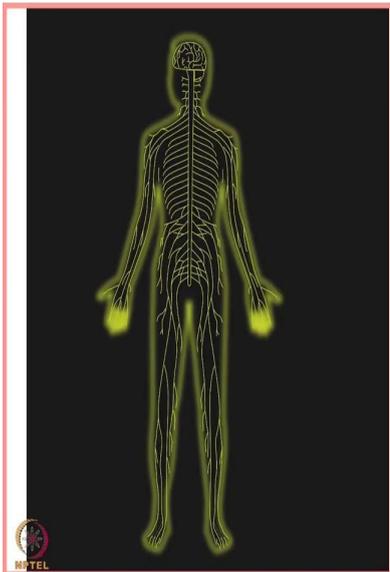
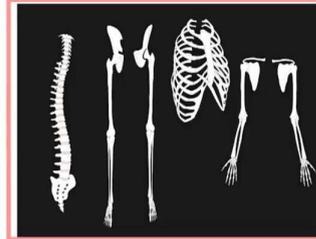
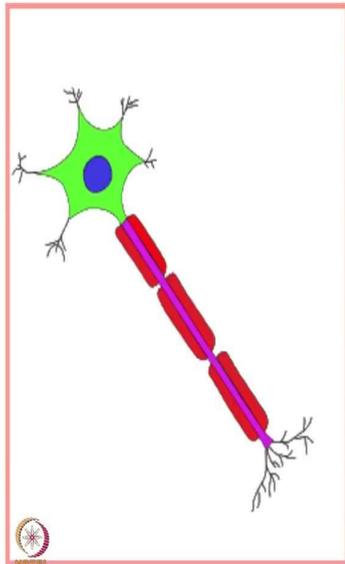
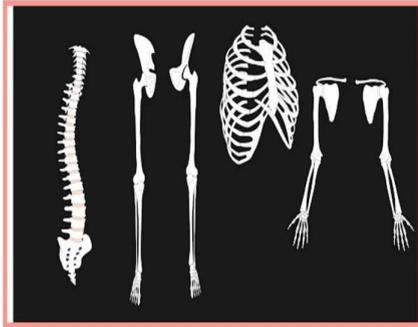


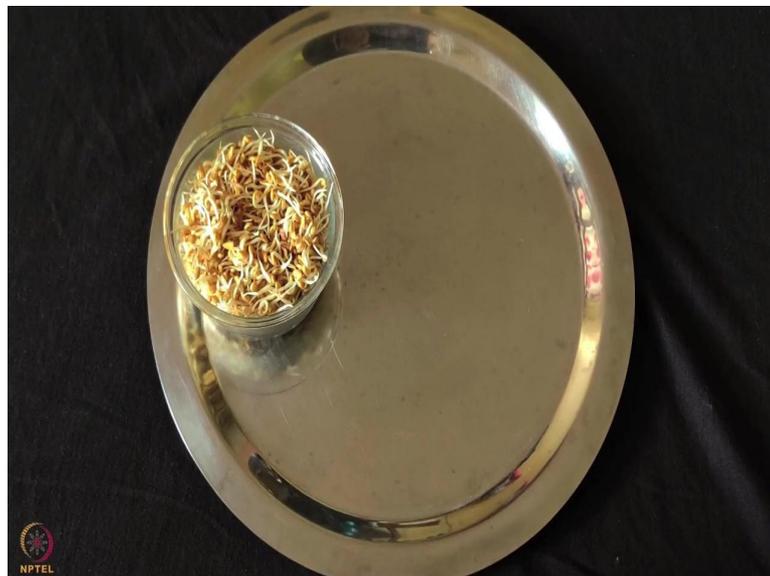
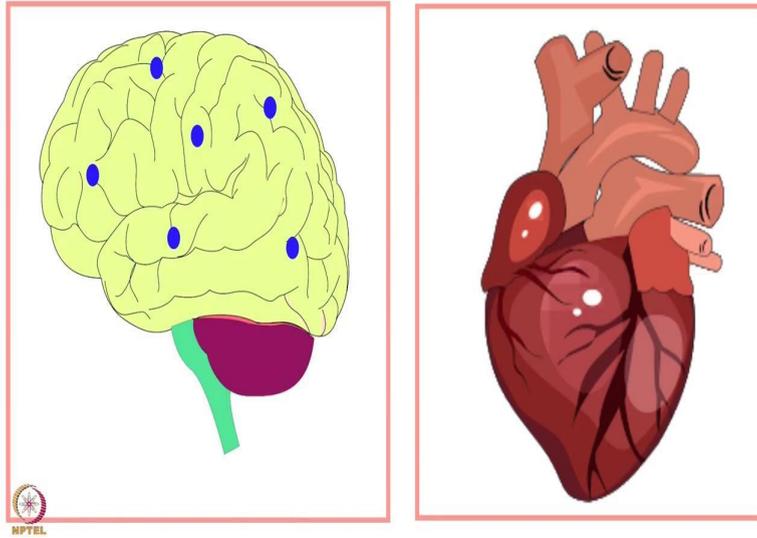


To make fenugreek seeds sprouts, soak fenugreek seeds in water overnight. Drain the water and tight in a clean muslin cloth. Set aside for 2 or 3 days till they sprout. To make the recipe in a pan heat some oil add mustard and cumin seeds and let it splutter. To this add onion and fry till it changes color. Now, add the tomatoes and cook till they turn soft. Next add the spices and cook for 2 minutes. To this add fenugreek sprouts and 2 tablespoons water. Mix well and close and cook for 6 to 8 minutes. Turn off the heat and add lemon juice the sprouted fenugreek seeds curry is ready.

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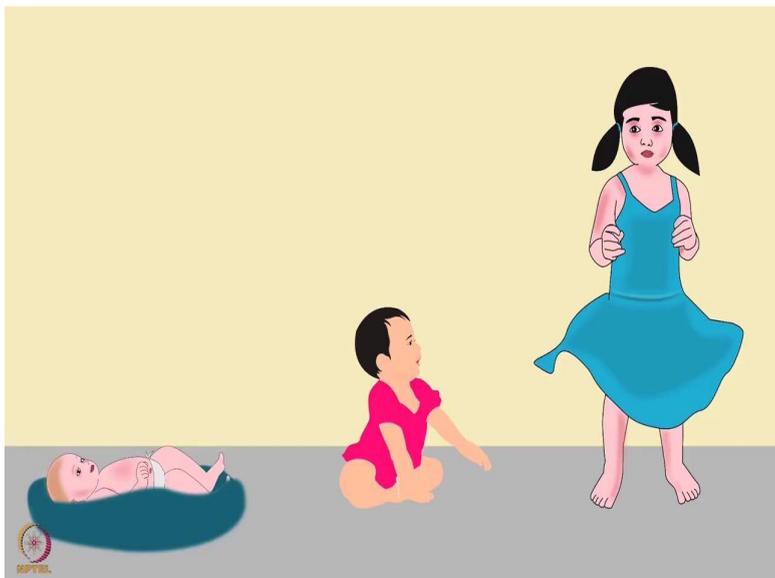
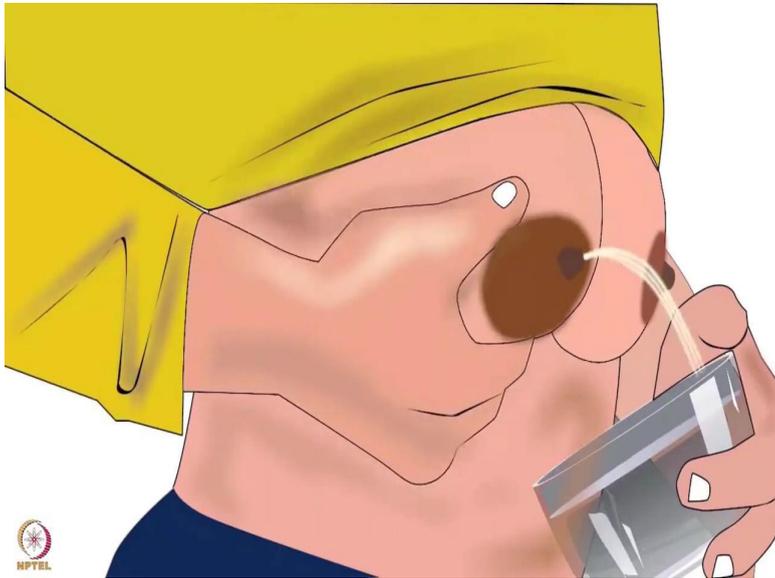






This recipe is rich in protein, fiber, phosphorus, calcium, iron and omega 3 fatty acids  
fenugreek sprouts are excellent galactagogues.

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All the recipes in this tutorial are rich in nutrients which are required for milk production, growth and development of the baby and keeping the mother healthy.

(Refer Slide Time: 14:44)

## Spoken Tutorial Project, IIT Bombay

Funded by NMEICT, MHRD, Government of India

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## DISCLAIMER

*The information shared in this Spoken Tutorial is provided by domain experts and professionals. However, it is not a substitute for a qualified medical opinion.*

*In case of a doubt or further query, please consult a doctor or a nutritionist or a dietitian or a lactation consultant trained in Maternal, Infant and Young Child Nutrition.*



This brings us to the end of this tutorial. Thanks for joining.

(Refer Slide Time: 14:51)



## Non-Vegetarian Recipes for Lactating Mothers

Spoken Tutorial Project

<http://spoken-tutorial.org/series>

YouTube Channel: Health Spoken Tutorial - IIT Bombay

Script and Narration: S. J. Monika

Graphics and Animation: Arthi Anbalagan



IIT Bombay  
7 August 2019



NPTEL

S. J. Monika

Non-Vegetarian Recipes for Lactating Mothers



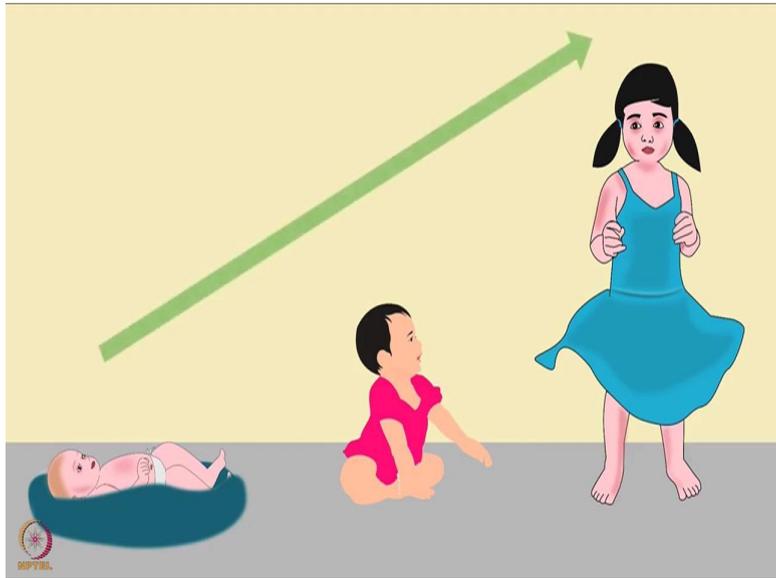
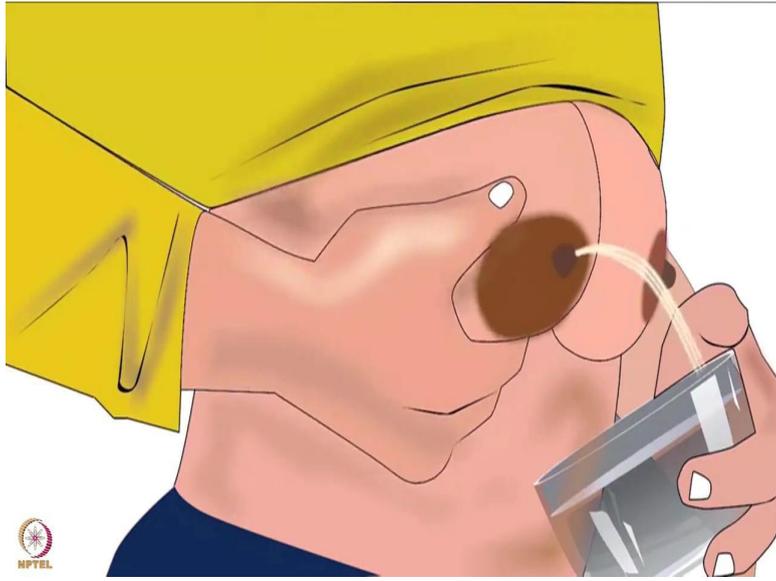


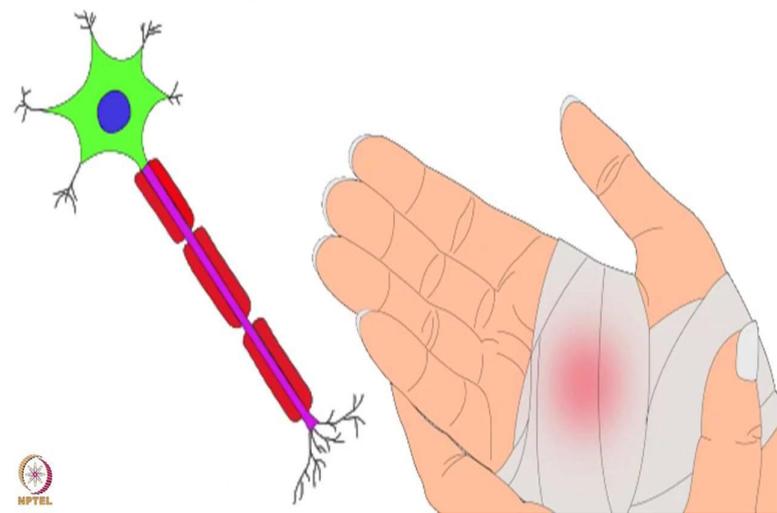
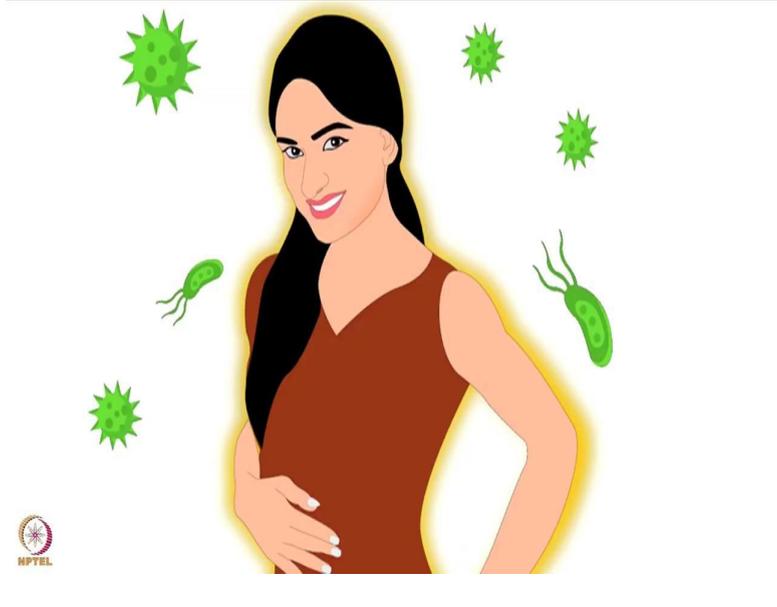


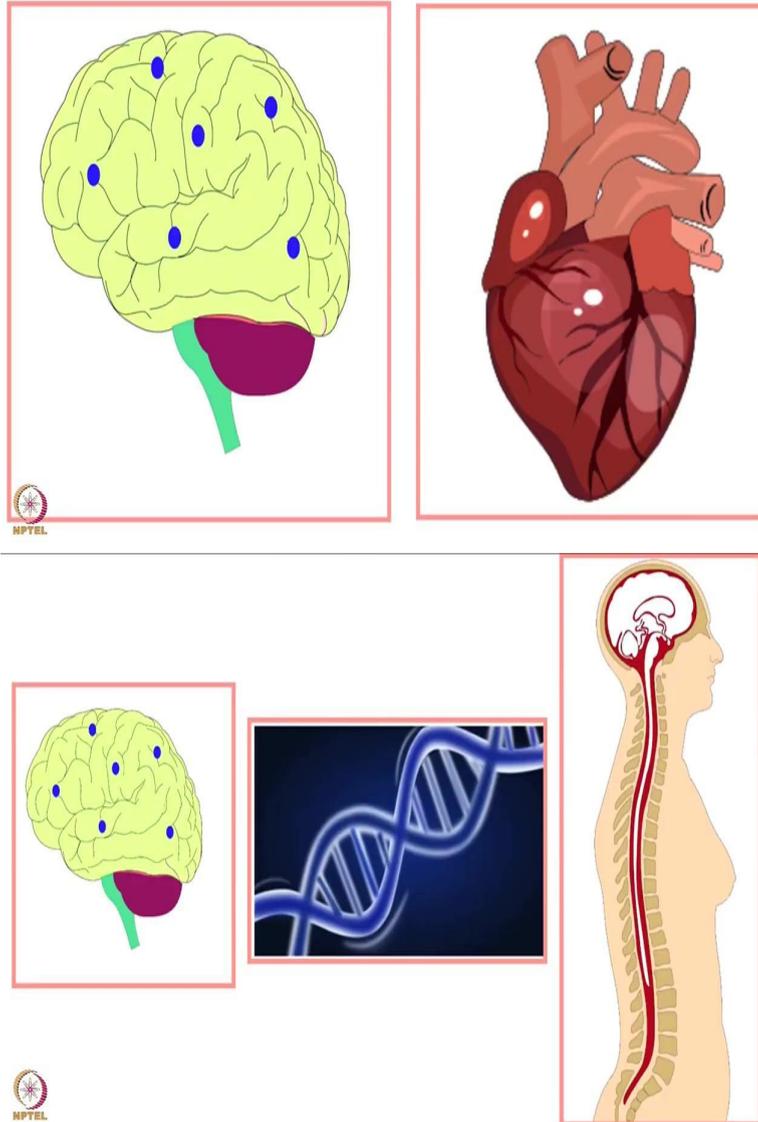
Narrator S.J Monika: Welcome to spoken tutorial on non-vegetarian recipes for lactating mothers. In this tutorial, we will learn about importance of nutrition during lactation. Preparation of non-vegetarian recipes such as chicken curry with drumsticks, chicken in peanut garlic masala, fish coconut curry, mixed vegetables curry with egg, and fish spinach curry.

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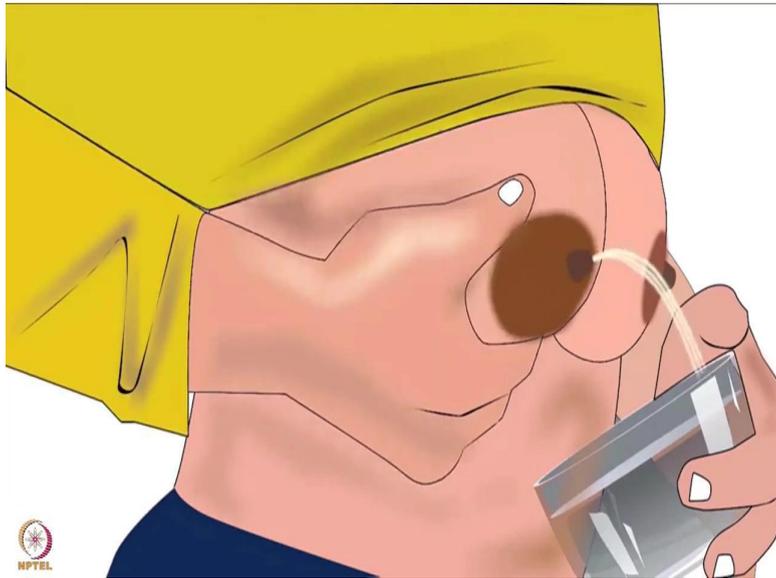
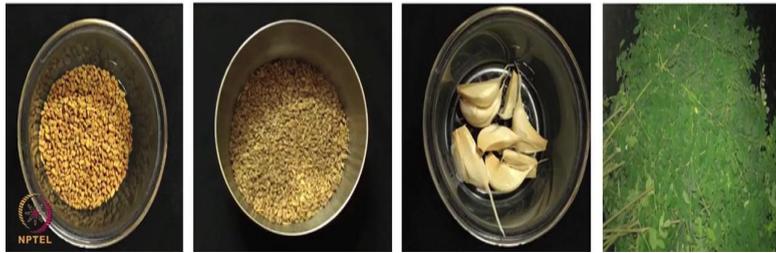






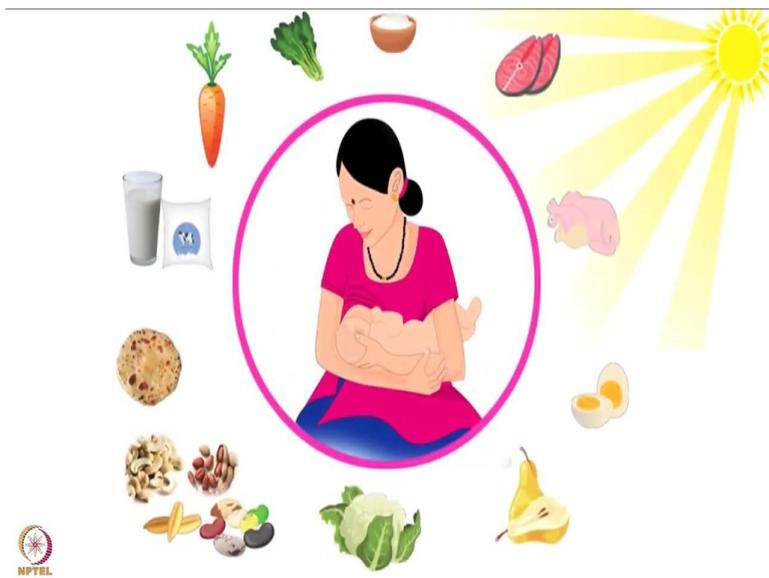
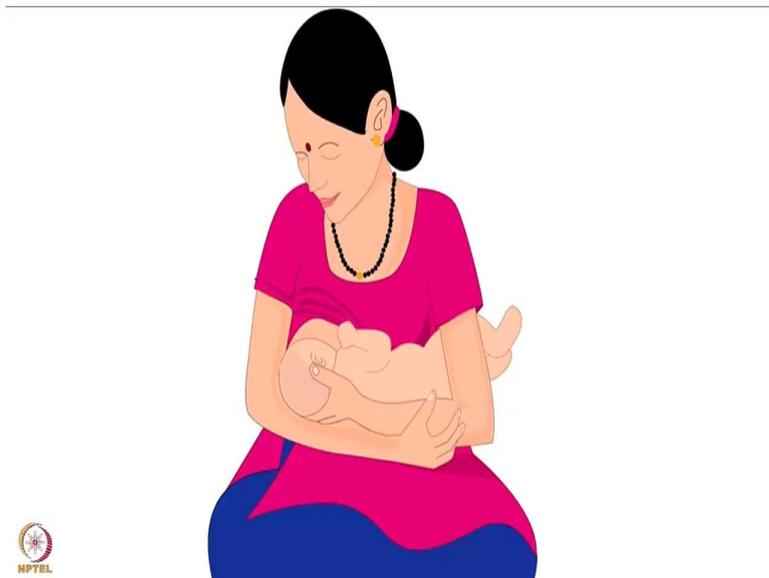
During lactation a mother requires additional amount of nutrition for milk production to provide enough nutrients for the growing infant and to meet mother's daily needs. Essential nutrients require during lactation are vitamins, minerals, omega 3 fatty acids and choline.

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Besides nutrients, we will learn about galactagogues. Galactagogues are substances that help in milk production. Mother can get it from diet by including garlic, fenugreek seeds and leaves, fennel seeds, garden cress seeds, drumstick leaves, dill leaves and carom seeds. Please note nutrition for lactating mothers has been explained in another tutorial of the same series. After understanding the importance of nutrition during lactation, we will begin with the preparation of the recipes.

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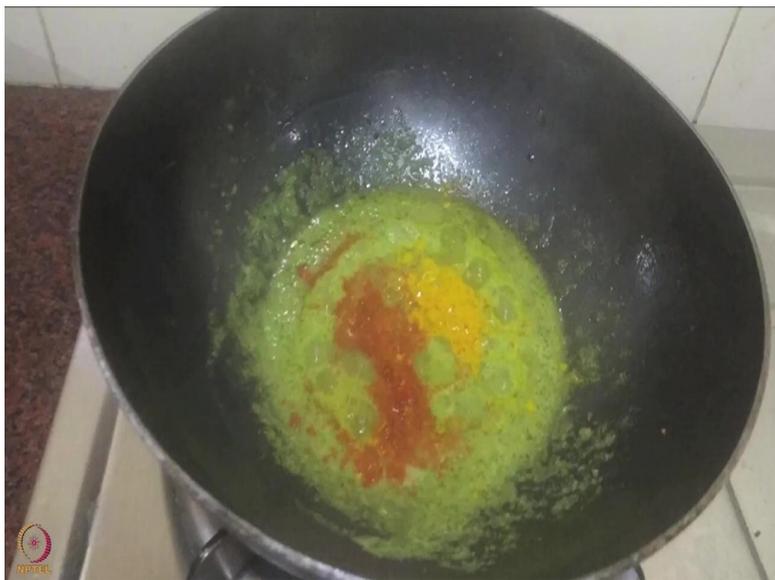
Let us begin with our first recipe which is chicken curry with drumsticks. To make this we need 100 grams of chicken, 2 pieces of drumstick, one sprig curry leaves, one teaspoon black pepper seeds, one chopped onion, 4 cloves garlic, salt as per taste, half teaspoon turmeric powder, half teaspoon chili powder, one green chili, one handful coriander leaves, 2 teaspoon oil.

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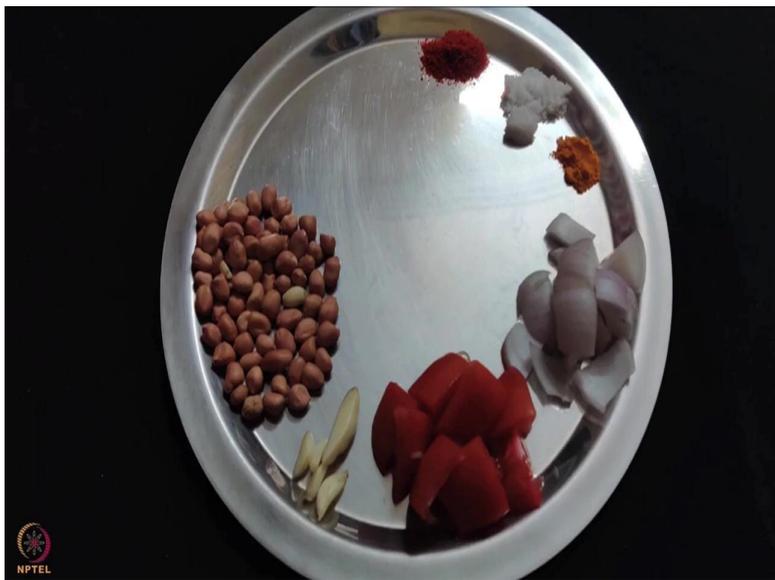






In a pan heat one teaspoon oil, to this add onions, garlic, pepper, and green chili, sauté till they turn golden in color. Now, add curry leaves, coriander leaves and fry for 2 to 3 seconds cool them and grind it into a paste by adding a little water. Next pressure cook or boiled drumsticks until cooked, heat one teaspoon oil in a pan, add the prepared paste and cook for 2 minutes. To this add all the spices and chicken, now add half cup water and mix well, cover and cook till the chicken becomes tender. To this add the boil or pressure cook drumsticks. Let it cook for 2 to 4 minutes. Chicken curry with drumsticks is ready.

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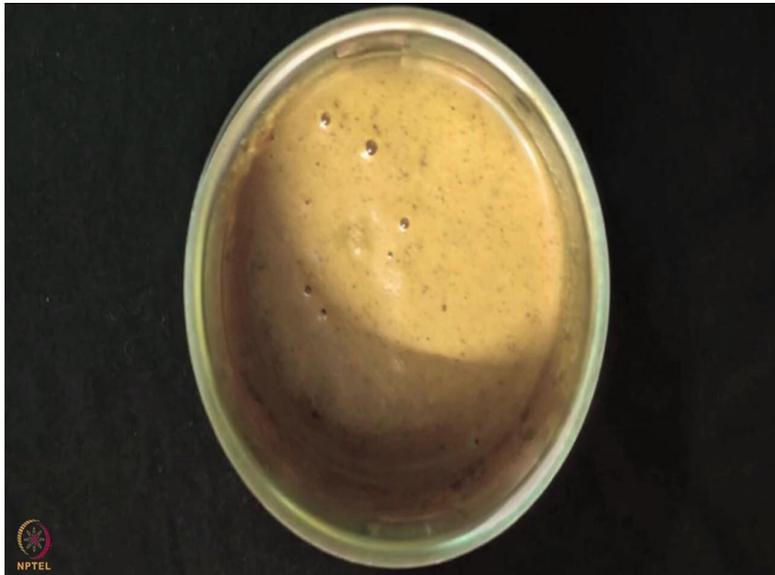
The second recipe that we will learn is chicken in peanut garlic masala. To prepare this we need 100 grams chicken, 2 tablespoons peanuts, 5 cloves garlic, one tomato chopped, one onion chopped, half teaspoon turmeric, salt to taste, one teaspoon red chili powder, 2 teaspoon oil.

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To prepare peanut garlic paste, roast the peanuts on a pan on medium flame, stir them continuously to avoid burning. Allow them to cool, rub roasted peanuts between your palms to remove the outer cover. Now, in a pan heat one teaspoon oil and add onion, tomato, and garlic. Fry till tomato becomes soft, allow them to cool after cooling mix this with peanuts, grind it into a paste by adding little water.

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Heat one teaspoon oil in a pan, now add peanut garlic paste and cook for 2 minutes. Next add the spices and mix well to this add chicken and cook for next 2 minutes, now add a little water mix well cover the pan and cook till chicken becomes tender chicken peanut garlic masala is ready.

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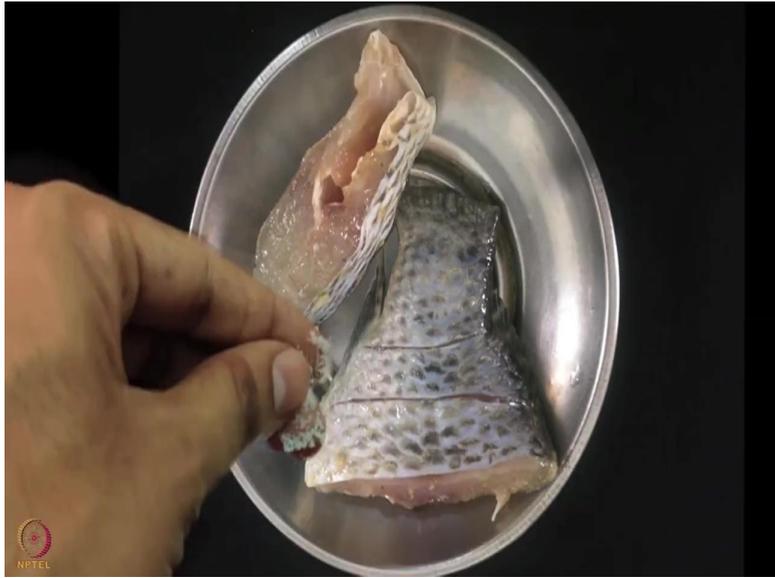


The third recipe is fish coconut curry. For this take 100 grams Rohu, half cup grated coconut, 4 red chilies, half teaspoon turmeric, salt as per taste, 4 cloves garlic, one small lemon sized tamarind ball, one onion chopped, half teaspoon fenugreek seeds, half teaspoon cumin seeds, one teaspoon oil.

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In case Rohu is not available then you may use any one of these Mackerel, Pomfret, or Bombay duck. Clean the fish, add 2 pinches salt and leave it for 10 minutes. Dry roast red chilies, fenugreek seeds, cumin seeds till they change color. Grind the roasted ingredients along with coconut, tamarind and garlic into a paste.

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In a pan add one teaspoon oil and heat it, now add onions and fry till onion becomes golden, to this add the ground paste and cook for 5 to 6 minutes, add the spices and mix well. To this add marinated fish and cook for next 10 minutes, the fish coconut curry is ready.

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The fourth recipe is mixed vegetable boiled egg curry, to make this we need 2 boiled eggs, 2 florets cauliflower, one medium onion, 2 french beans chopped, one medium tomato chopped, half small capsicum chopped, one tablespoon sesame seeds, one teaspoon chili powder, salt to taste, half spoon turmeric powder, one tablespoon poppy seeds, half teaspoon garden cress seeds powder, one tablespoon oil.

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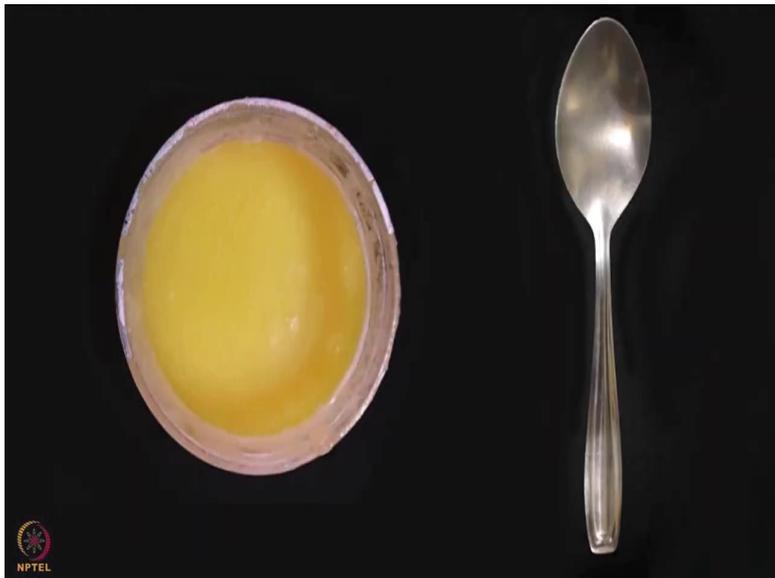






Dry roast sesame and poppy seeds in a pan, allow them to cool. Next, add half teaspoon oil in a pan and sauté tomatoes, after cooling grind the tomatoes and seeds in a mixer or stone grinder, heat one teaspoon oil in a pan, add onions and fry till they become golden. Now add tomato paste and cook for 5 minutes. Add salt, turmeric, chili powder and stir well, to this add some water and vegetables. Cover and cook till the vegetables become soft. Cut the boiled eggs into 2 half and add it to the curry, cook for a minute. Mixed vegetable boiled egg curry is ready.

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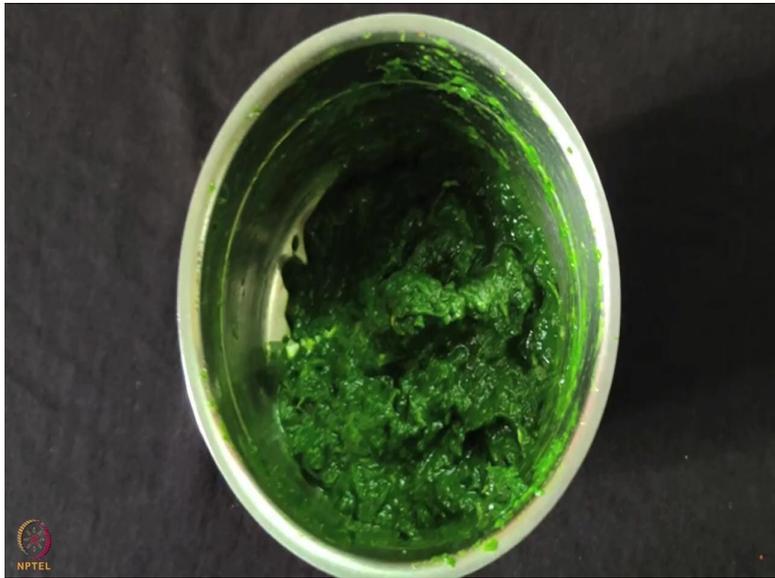


The last recipe that we will see is spinach fish curry. To prepare this we need 2 pieces salmon, 4 to 5 leaves of spinach, salt to taste, one teaspoon chili powder, half teaspoon turmeric powder, one teaspoon flaxseed powder, one teaspoon ghee or oil, one handful coriander leaves, one teaspoon lemon juice, one green chili, one teaspoon garam masala powder.

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Wash the fish pieces, add some salt and turmeric and keep it aside. Wash spinach thoroughly in water, boil water in a pan and add spinach to it and cook it for 5 minutes. Next strain the water and let it cool, grind the spinach, coriander and green chili to a paste, heat one teaspoon Ghee or oil in a pan and fry the fish until cook.

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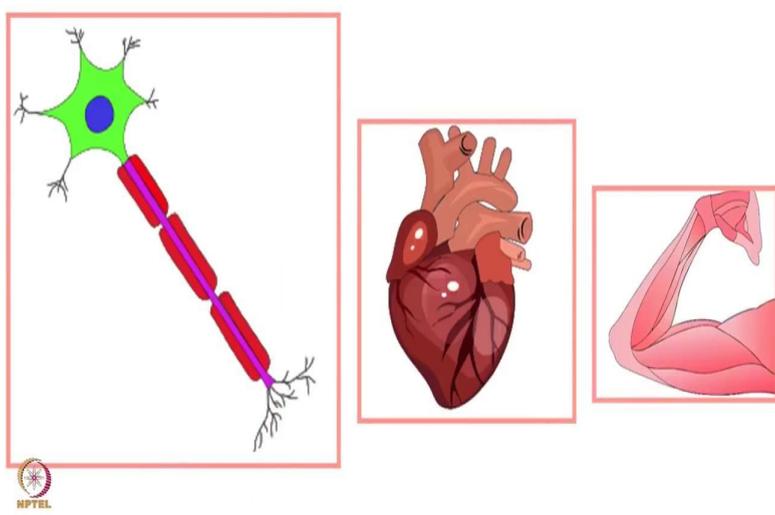
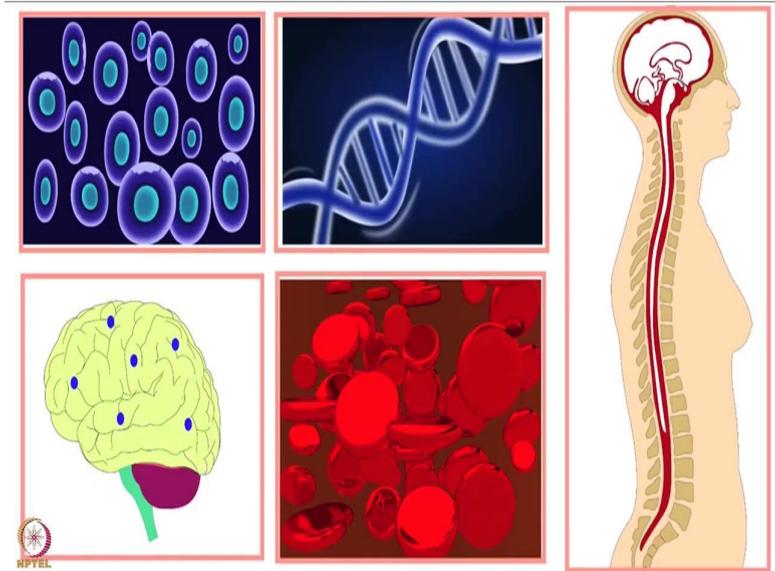
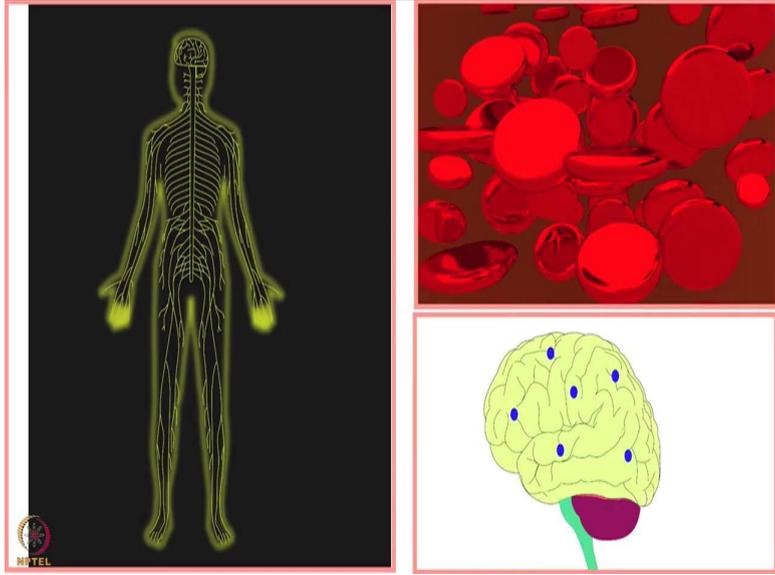


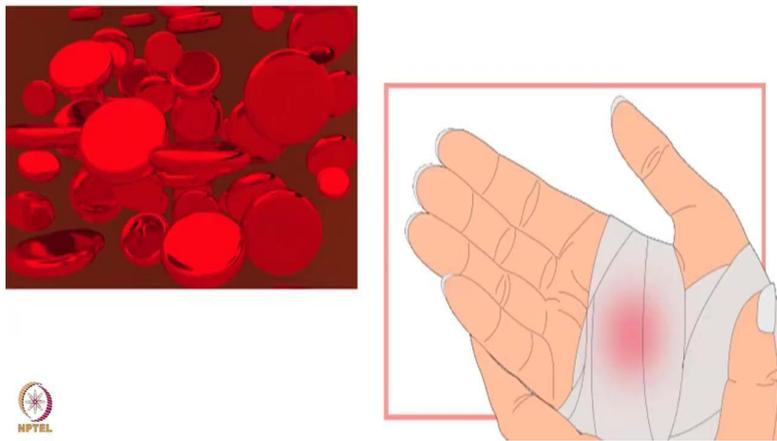
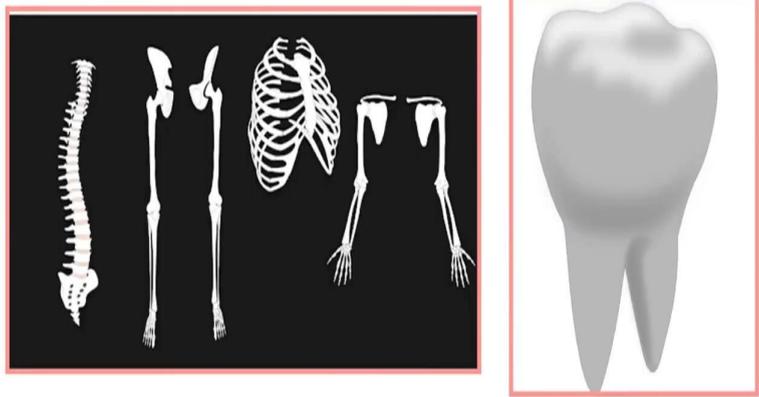
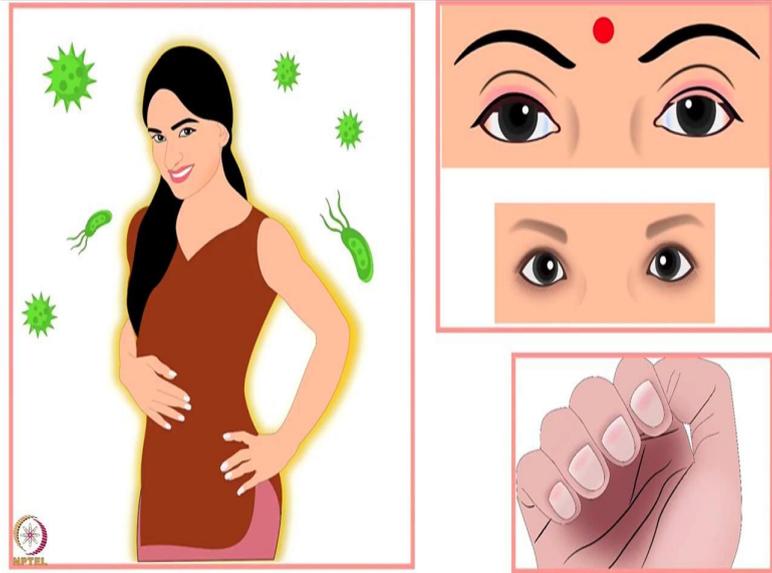
Simultaneously heat one teaspoon oil or ghee in another pan, add the spinach paste and little water and let it cook for 5 minutes, to this add the spices and mix well. Now, add the fried fish pieces and cook till the masala coats the fish. Add garam masala and flaxseed powder and cook for 2 minutes. Turn off the stove and add lemon juice the fish spinach curry is ready.

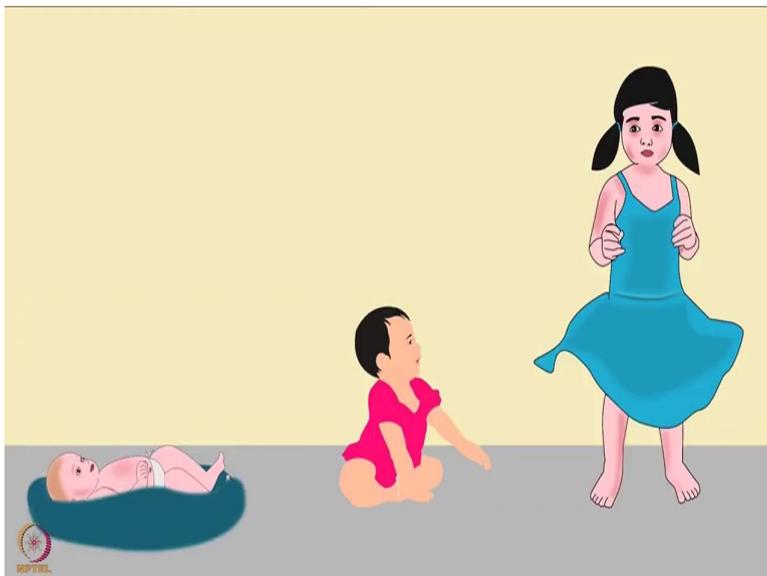
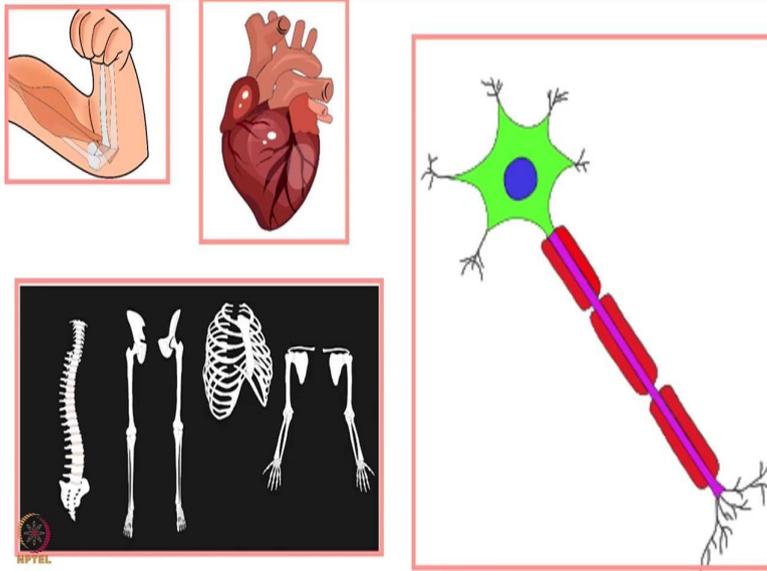
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All the above recipes are rich in protein, vitamin B 12, good fats, iron, folate, potassium, vitamin A, vitamin B, zinc, magnesium these nutrients help in growth and development of the baby, milk production in mother and keeping the mother healthy.

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## Spoken Tutorial Project, IIT Bombay

Funded by NMEICT, MHRD, Government of India

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This brings us to the end of the tutorial. Thanks for joining Good