

**DIET PLAN FOR ANAEMIA
STUDENTS STUDY PROJECT**

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DATE: 30/02/2020

Anaemia is a condition where an individual lacks enough red blood cells /adequate amount of haemoglobin in the blood to carry oxygen to all the tissues of the body. It is of many types; we focused on nutritionally deficient anaemia in the present article.

As a part of our daily college activity, we have visited the reading room to glance at daily newspaper articles. On 27/02/2020, as usual, we gathered in the reading room and found an article on anaemia in the district edition of EENADU. We were surprised to know that many pregnant women visiting Vijayawada Government Hospital were suffering from nutritionally deficient anaemia. This problem can be easily prevented by awareness, teaching the knowledge of food readily available, low cost and nutritional-rich for pregnant women. To find the solution as a future perspective, we approached our Biochemistry madam and prepared diet plan for anaemia as our second-semester study project. We succeeded in learning the concepts of RDA (Recommended Dietary Allowances), Balanced diet, Food sources rich in iron, copper, B-complex vitamins, and prepared diet plan to cure anaemia.



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In 2019, global anaemia prevalence was **29.9% (95% uncertainty interval (UI) 27.0%, 32.8%)** in women of reproductive age, equivalent to over half a billion women aged 15-49 years as per WHO.



Anaemia is widespread in India-**58.6% OF CHILDREN**, 53.2% of non-pregnant women and 50.4% of pregnant women were found to be anaemic in 2016, as per the NFHS. India carries the highest burden of the disease despite having an anaemia control programme for 50 years. **Around 58% women (aged 15-49)** have been found anaemic in Andhra Pradesh in the fifth National Family Health Survey (NFHS-5). Anaemia prevalence among girls aged 15-19 in the state is more than 60%. Anaemia affects nearly 16% men (aged 15-49) and 18.7% boys aged 15-19, according to NFHS-5.

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We were divided into groups and choose the best diet plans using seasonal available fruits and vegetables. My friend Priya Krishna & team prepared cake using jiggery and dry fruits which are rich in iron, magnesium, potassium etc. Which helps to prevent anaemia if we include it in our balanced diet. We have prepared beetroot juice and orange juice which are rich in iron and vitamin-c. Beetroot juice is exceptionally high in nitrates, essential nutrients. Beetroots are a great source of fibre, folate(vitamin-B9), manganese, potassium, iron and vitamin-c. Beetroots and beetroot juice have been associated with numerous health benefits, including improved blood flow, lower blood pressure, and increased exercise performance. Orange juice with pulp is a good source of fibre. Studies have shown that fiber helps the body maintain digestive health and may lower your risk of conditions like diabetes, heart disease, and some types of cancer. Vitamin-c indirectly helps in iron metabolism in our body prevents anaemia. My friend Bharati & team have prepared spinach rice, rich in vitamin-K & moringa leaves salad. Spinach also contains several other vitamins and minerals, including potassium, magnesium, and vitamins B6, B9, and E. Spinach is rich in essential mineral iron that helps to create haemoglobin which brings oxygen to our body tissues. As spinach contains folic acid or vitamin B9 a compound vital for pregnant women for normal cellular function & tissue growth.

Moringa leaves are an excellent source of many vitamins and minerals. Moringa oleifera is rich in antioxidants. My friend Chandini Priya & team have prepared vegetable salad and veg sticks. Salads greens in colour contain vitamin-A, vitamin-C, beta carotene, calcium, folate, fibre, and phytonutrients. Leafy vegetables are a good choice for a healthful diet because they do not contain cholesterol and are naturally low in calories and sodium. My friend Prudhvi & team have prepared ragi malt. The common health benefits of Ragi consumption include reducing heart disease risk, improving digestion, and diabetes management. Ragi is a rich source of calcium, high antioxidants, and is completely gluten free. It is good for heart health as 100g of ragi contain 137mg of magnesium and magnesium plays a key role in maintaining heart health.

My friend Grace Mani & team have prepared sesame balls and peanut chikki. Sesame seeds have many potential health benefits and have been used in folk medicine for thousands of years. They may protect against heart disease, diabetes, and arthritis. Sesame seeds consist

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of 15% saturated fat, 41% polyunsaturated fat, and 39% monounsaturated fat. Research indicates that eating more polyunsaturated and monounsaturated fat relative to saturated fat may help lower your cholesterol and reduce heart disease risk. Sesame seeds are high in methionine and cysteine, two amino acids that legumes don't provide in large amounts. Sesame seeds are high in magnesium which may help lower blood pressure. Additionally, lignans, vitamin E, and other antioxidants in sesame seeds may help prevent plaque build-up in your arteries, potentially maintaining healthy blood pressure.

We are all thankful to our biochemistry Syed Vaziha Tahaseen mam for encouraging and helping us to do this project

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