



#hERHealth a social awareness initiative of NOGS & team 23-24

Anaemia and diet in Adolescence.

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What is Anaemia?

It is the condition in which the number of RBCs or concentration of haemoglobin in them is lower than normal. Haemoglobin is rich in iron. It carries oxygen to different parts of the body. Deficiency of iron in the diet leads to decreased amount of haemoglobin and so there is less supply of oxygen to different parts of the body.

Anaemia in Adolescents

Haemoglobin <12 gm/dl in adolescents is Anaemia. Prevalence of anaemia is 53.8% to 59% in girls and approximately 30.2% in boys. Anaemia in boys and girls limits their development, learning ability, reduces concentration in daily tasks, increases vulnerability to infection, increases school dropout rates, reduces physical fitness and work productivity.

If during adolescence importance is not given to iron supplementation and adequate nutrition, then it may push young boys and girls into the cycle of iron deficiency and anaemia. In adolescent girls apart from meeting growth requirements, sufficient iron intake is necessary before and during pregnancy.

Causes of Anaemia Nutritional Causes

a) Iron deficiency Anaemia

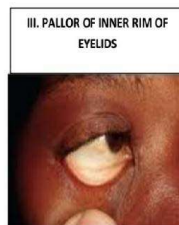
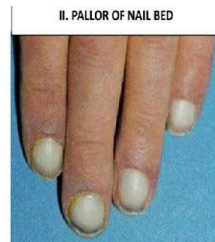
- 1) Poor dietary intake of Iron
- 2) Low bioavailability of Iron because of foods high in phytates and low in Vit C.
- 3) Dietary deficiency of Folic acid, Vit B & Vit C

Non-Nutritional Causes

- a) Increase in requirement of iron during adolescent period.
- b) Hookworm infestation.
- c) Malaria.
- d) Loss of blood during periods in girls.
- e) Haemoglobinopathies.
- f) Teenage marriage and early pregnancies - Teenage pregnancy doubles the burden on the physically and physiologically immature body of the girls and results in increase chances of anaemia, maternal mortality and pregnancy complications.

Signs and Symptoms of Anaemia

- a) Whiteness or pallor in inner rims of eyelids, tongue, nails or palms.
- b) Soreness of mouth and cracks at corners.
- c) Dizziness, tiredness, fatigue and low energy.
- d) Rapid heart rate with exercise.
- e) Shortness of breath, headache
- f) Lack of interest in play and studies & difficulty in breathing.
- g) Lowered resistance to infection.



Prevention and control of Anaemia

- a) **Balanced diet rich in iron.**

Adolescence is a significant period for physical growth and sexual maturation. Adolescents need a balanced diet i.e. diet having proteins, carbohydrates, vitamins, fats and minerals, in required amount and proportions for maintaining health and general well-being.

Foods rich in iron are

- 1) Green leafy vegetables - spinach, methi ,amaranth etc
- 2) Grains - Wheat, jowar, bajra and other millets
- 3) Liver, egg, fish, red meat
- 4) Dry fruits

Vitamin C rich foods help in absorption of iron e.g. oranges, lemon and amla.



- b) **Iron supplements** - Iron and folic acid tablets can be distributed in school or through anganwadis.
- c) **Biannual deworming** with Albendazole.
- d) Information and counselling for improving dietary intake.
- e) **Fortification of foods with iron**
- f) **Prevention of malaria.**

Do's and Don'ts while following a diet plan for iron deficiency anaemia.

Do's

- 1) Include more green leafy vegetables in diet.
- 2) Eat pulses and legumes.
- 3) Include all varieties of fruits and vegetables.
- 4) Eat lean red meat and liver which are rich in easily absorbed iron.
- 5) When you consume iron rich foods include a source of Vit C which will help in iron absorption.

Don'ts

1) Avoid eating dairy products 2 hours before and after you consume iron rich foods as calcium interferes with absorption of iron.

2) Avoid tea, coffee and colas as they contain substances which interfere with iron absorption.

Adolescence is an opportune time for interventions to address anaemia as it is an important time for growth and development.

Investing in adolescent health and wellbeing brings a triple dividend of benefits i.e. for adolescents now, for future adults and for the next generation.

So if we want to have an Anaemia Mukht Bharat we should focus not only on diagnosing and treating anaemia in the adolescents but also educating them about the right nutrition.