

THE ASPECTS IN PRECONCEPTION CARE

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INTRODUCTION

Preconception means the period before conception; conception means the act of becoming pregnant. Preconception care refers to the care taken by the women before the pregnancy, to have a safe motherhood and healthy baby.

All the women before the marriage should know about preconception care. They should know about their health, because after marriage soon they will become pregnant.

Preconception care includes some modification in the existing practices. The aspects of preconception care are;

1. General health measures
2. Components involved in preconception care

1. GENERAL HEALTH MEASURES

Preconception care should be started, at least 3 months before pregnancy. But it can begin even before marriage. Health measures in preconception care include checking haemoglobin level, taking treatment for any pre-existing infection will help to avoid many upcoming problems in future pregnancy.

The general health measure means the measures which are taken to improve the overall health of the women to deliver a healthy baby. It may include the following aspects;

- 1.1 Early Screening to identify risk factors
- 1.2 Consumption of Balanced diet
- 1.3 Maintaining ideal body weight

1.1 Early Screening to Identify Risk Factors

Early screening means finding the problems within the individual before the problem has developed. Giving the appropriate treatment helps to reduce the symptoms in the future. In preconception care the screening includes the following things such as;

- 1.1(a) Detection of anaemia and its management
- 1.1(b) Genetic disorders
- 1.1(c) Medical disorders
- 1.1(d) Obstetric problems
- 1.1(e) Infection reduction



Womens Preconception Health
Evaluation Booklet

1.1(a) Detection of anemia and its management

Anemia is the most common problem at the adolescent period, as blood loss occurs every month due to menstruation. Most of the women will have anemia at the time of conception. Anemia means haemoglobin in the blood less than 11-12gm%

Anemia also can cause due to hookworm infestation, due to walking barefoot in the soil, consumption of contaminated water and food. Skin irritation is the main symptom. Anti-worm tablets (albandazole-400mg) can be given before initiating iron therapy.

How to detect anemia?

- Checking the Haemoglobin (Hb) in blood helps to detect anemia.
- This can also easily identified by seeing the face, conjunctiva, tongue and nail buds for presence of pallor.

Effect of Anemia in pregnancy

Anemia if not treated can cause problem in mother such as

- Excessive fatigue during pregnancy.
- Cardiac failure during labour.
- Excessive bleeding after delivery.
- It also affects foetus and lead to prematurity, low birth weight.



1.1(b) Genetic disorders

Genetic disorders are inherited disorders from the parents. A genetic disorder is caused by an abnormality in an individual's DNA. Some of the disorders like sickle cell anemia, thalassemia are the types if we identify in the early stage the genetic counselling can be given for them.

1.1(c) Medical disorders

Medical disorders are due to the defect or abnormality in the function of the organs. Pre-existing medical disorders like;

- Cardiac diseases
- Fits
- Diabetes mellitus
- Hypertension



These have greater impact on pregnancy. So if the woman has any medical problems they must consult the doctor early and existing problems should be corrected before beginning pregnancy.

1.1(d) Obstetric Problems

Obstetric problems include;

- Family history of delayed pregnancy
- Twin pregnancy
- Hypertension during pregnancy
- Diabetes during pregnancy



These women should take an additional care before the conception. Seeking early medical help and careful monitoring in pregnancy will improve the maternal and foetal outcomes.

1.1(e) Infection reduction

Infection is the invasion of harmful micro-organism into our body. Infection can alter the body normal function. If the women have any type of infection it should be taken into account as it cause problem to mother and foetus during pregnancy. The infection such as

- Dental caries
- Recurrent fever
- Genito-Urinary tract Infections
- Respiratory tract infections



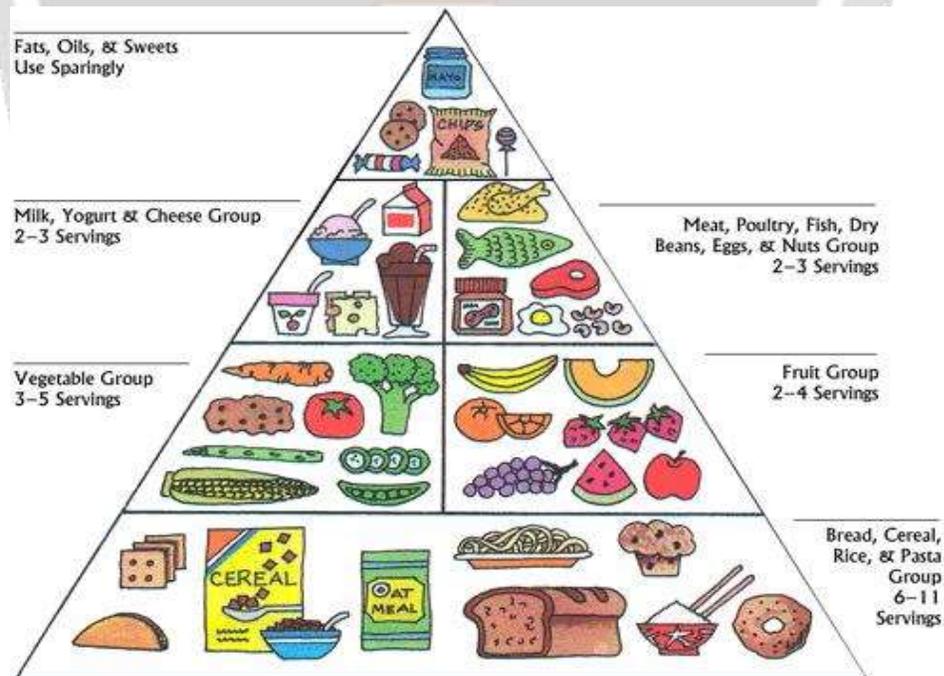
These should be treated adequately before conception. They should see doctor and take the treatment and medication appropriately to correct the problem.

1.2 Consumption of Balanced Diet

Balanced diet means taking comprehensive nutrients in daily diet which include the complete range of;

- Carbohydrates
- Protein
- Vitamins
- Minerals
- Essential fatty acids.

Before the time of conception and during pregnancy there is an increase requirement of all nutrients in the body so it is important to eat a well-balanced diet. A food pyramid arranges the food starting from the high calorie food at the top to the low calorie food at the base.



The balanced diet with its sources and importance

Nutrients	Sources	Importance in preconception period	Daily requirement
Carbohydrate	Rice, Cereals	Provides energy	300-400gm
Protein	Pulses	Provide immunity to the body, Helps in haemoglobin production	40-60gm
Vitamin A	Carrot, sweet potato & all yellow coloured fruits and vegetables	Improves the integrity of skin and mucus membrane.	700mcg
Vitamin B	Pulse, fish and meat	Helps in absorption, prevents neural tube defect	45mg
Vitamin B12	Liver, meat, milk, Fish	Help in the production of hormones, enzymes, blood.	50mcg
Vitamin C	All citrus fruits (orange, lemon etc)	Helps in the absorption of iron from the diet	75mg
Iron	Green leafy vegetables, jaggery	To improve the haemoglobin concentration	13-15mg/day
Folate	Beans, liver, Green leafy vegetables	To improve the blood production, prevents vertebral column defect	400mcg
Calcium	Milk, fish	Helps in muscle function	360mg/day

Role of balanced diet in preconception care

- Balanced diet is required for healthy embryonic growth and for the health of the mother during pregnancy.
- Help to protect from infection.
- Provides immunity to the body.
- Improve the general health of the women such as healthy skin, bone and teeth.

1.3 Maintaining ideal body weight

Ideal body weight can be maintained by taking balanced diet. To measure the ideal body weight we must know the body mass index. Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women.

It tells whether to lose weight or not. In Indians it is advisable that the BMI should not be more than 23kg/m^2 .

BMI Formula

$$\text{BMI} = \frac{\text{Weight in kg}}{\text{Height in metre}^2}$$

BMI Categories:

Underweight = $<18.5\text{kg/m}^2$

Normal weight = $18.5\text{--}24.9\text{ kg/m}^2$



Overweight = 25-29.9 kg/m²
 Obesity = BMI of 30 or greater kg/m²

Role of normal body weight in preconception

A woman should have the normal body weight before the pregnancy as it

- Improve the health of the women
- Improve the health of the baby
- Reduces the risk of infertility(delay in pregnancy)
- Reduces the irregularity in menstruation
- Gives immunity for the body to fight against the infection

2. COMPONENTS INVOLVED IN PRECONCEPTION CARE

The knowledge should be improved on preconception care among the unmarried girls to prevent the problems during pregnancy.

The areas to improve the knowledge include;

- 2.1) Folic acid supplementation
- 2.2) Stress reduction
- 2.3) Mental preparation
- 2.4) Understanding fertile period
- 2.5) Early signs & symptoms of pregnancy

2.1) Folic Acid Supplementation

Women before planning the pregnancy should consult the doctor and as per the doctor's advice they should take folic acid supplementation.

When to start folic acid supplementation?

It is important to take folic acid tablets at the first three months before pregnancy.

Amount to be taken before conception

The Ministry of Health recommends that women should take 0.4 mg per day (400 micrograms) of folic acid as a supplement before conception.

Role of folic acid in preconception

- Taking folic acid prevents neural tube defect among baby.
- It help to increase the Red Blood Cell production



2.2) Stress Reduction before Conception

Stress means the physical, mental emotional conflict in the mind which needs attention.

Causes of stress

- Family adjustment problems
- Marital problems
- Environmental factors.
- Problems with friends
- Any disease conditions

Symptoms of stress

The Stress can be identified with some of physical symptoms such as

- Sadness
- Irritability
- Restlessness



- Depression
- Hopelessness

Measures to reduce stress / Stress reduction technique

Stress reduction techniques are

- Listening to music
- Taking adequate rest
- Ventilating feeling with friends or relatives
- Exercise
- Meditation or prayer



Listening to music

It is the best method to reduce the mental tension and to relax. Hearing to melodious songs reduces the stress.

Taking adequate rest

Adequate rest should be taken to avoid stress. Women should have adequate sleeping during night for 6-8 hours and during day 1-2hours.

Ventilating feelings

Ventilating feelings means talking and sharing our problems with our friend and getting the remedy to solve it.

Exercises

Physical fitness is one of the most important elements of health before conception.

- Moderate exercise such as brisk walking can be done as it will not harm the growing foetus.
- Weight lifting exercises should be avoided by the women.

The role of exercise in preconception is

- It helps to maintain the ideal body weight.
- Relaxes the body.
- Helps in improving the health of mother and baby.

Meditation or Prayer

Meditation and prayer reduces stress. It also gives calm and peace to mind.

Role of stress reduction in preconception

- Improve the mental wellbeing of the women.
- This stress reduction can help to improve the health of women and baby.
- Reduces the psychological disturbances



2.3) Mental Preparation for Pregnancy

Mental preparation means preparing the mind for pregnancy. The life partner also should be included in mental preparation. Counselling is the best remedy to help the women and her life partner to avoid wrong decisions regarding pregnancy

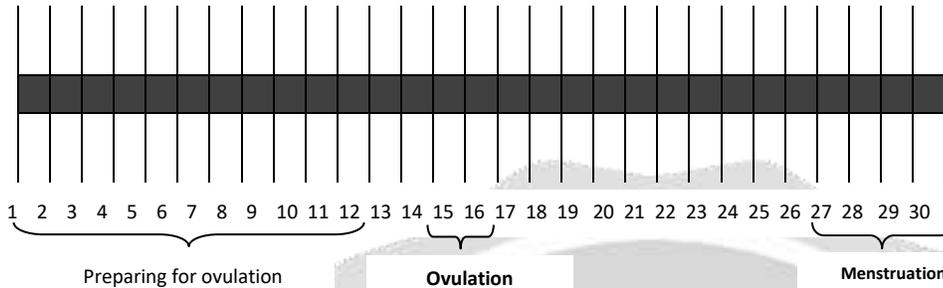
Role of mental preparation before conception

- To have a safe motherhood.
- To prepare mentally for pregnancy
- To understand the process of conception
- To avoid myths regarding conception
- To know the time of ovulation.
- To avoid unplanned pregnancy.
- Helps in reducing the physical & financial crisis
- Helps to understand the changes of body during pregnancy.

- To understand the timing for health check-up during conception

2.4) Understanding Fertile Period

Ovulation means production of egg/ovum from the ovary. Ovulation time is 14-16day in the normal menstrual cycle. Women having the regular periods will be able to calculate her fertile period.



Changes in the body at the time of ovulation

- At the time of ovulation the secretion from the cervix will change to egg white slippery appearance, this indicates that the ovum/egg has been produced from the ovary.
- Increased the body temperature.

How the women will become pregnant?

At the time of ovulation if the women had an intercourse then there is chance for fusion of sperm with ovum/egg this can lead to pregnancy.

Role of knowing the fertile period before conception

- Helps to plan the pregnancy in advance
- To avoid unplanned pregnancy

2.5) Early Signs and symptoms of Pregnancy

Missing the period is the predominant symptom in pregnancy, followed by women can have;

- Nausea & vomiting (morning sickness)
- Fatigue and tiredness due to hormonal change
- Frequency of urination
- Breast tenderness and pain

Why to know early signs of pregnancy?

- This will help the women to see the doctor early for the confirmation of pregnancy.

CONCLUSION

Preconception care is advised to all the women. It is strongly recommended to have the care before conception as it will improve the health of the women and the baby. The unmarried girls should take attention towards preconception care to have a healthy pregnancy and for safe motherhood.

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