

# HEALTHY PARENTS, HEALTHY CHILDREN PRE-CONCEPTION CARE



- Many women are aware about care during pregnancy, but preconception care is also important to deliver a healthy baby



Healthy baby

# Healthy baby

- Every couple (woman and her husband) desires a healthy and live long baby
- Baby is generally born full term (completion of 9 months 9 days). But birth can occur 15 days earlier or 15 days later to EDD
- Healthy baby cries immediately after birth
- It weighs about 2.5 to 3.0 kg.
- Its length is about 45 to 50 cm.
- There is absence of congenital anomalies
- What should we do to have such healthy baby? When to do?
- What are does and don'ts?
- ❖ Care should be taken before conception!  
How and what, that is what we will now learn....



It is necessary to plan parenting

# Planning parenting

It is necessary that both partners (wife and husband) are healthy and happy before conception

## Physical capacity

- Age of woman should be above 20 years
- Her BMI should be between 18.5 and 25.0
- Her Hb should be more than 12 gm %
- There should be minimum 3 years gap between two children
- They should not have any addiction of tobacco, Mishri, snuff (Nus), alcohol etc
- They should eat balanced diet
- They should not be suffering from any illness. If present, it should be treated

## Psychological capacity

- Child's responsibility should be accepted happily
- Hence, they should be prepared psychologically for before conception
- They should think of conception only after being prepared

• Every pregnancy should be planned

• After you have planned about conception, contact nurse or doctor and get information

• Woman should register immediately after she conceives and take proper care. She should also enquire about the nearest place for ANC services





It is likely that a preterm baby may die

# Probable risks

Following adverse events may occur due to unplanned parenting or if proper care is not taken

- Spontaneous abortion
  - Preterm baby is born (weight, length of such baby is less, baby is likely to die)
  - Low birth weight baby (such baby is also likely to die)
  - Still birth (baby doesn't cry after birth, no movement; born dead)
  - Baby is likely to have congenital structural or physiological anomalies
  - Baby is likely to die within four weeks. This is called as neonatal death. Baby is more likely to die in first week of life
- ❖ Such unfortunate incidences can be averted through proper pre-conception care



# Examination of women before conception



# Examination of women before conception

- Examination should be done through doctor or nurse and all necessary investigations suggested by them should be done
- Weight, height and blood pressure are simple standards. It should be assured that they are normal
- Besides, tests like blood group, haemoglobin, initial test for sickle cell anaemia, blood glucose should be done
- Husband's blood group when wife is Rh negative, diagnostic test for sickle cell anaemia, blood glucose level should be done if needed. Eg. Oral Glucose Tolerance test for diabetes, electrophoresis for sickle cell anaemia
- Thyroid function test should also be done
- HIV and VDRL test after counselling for STD and if needed, husbands testing and treatment of both partners should be done
- Besides any investigations advised by doctor should be done (eg blood test for malaria)
- The results of the test should be communicated and understood by women
- ❖ Treatment as per the advice of doctor or nurse should be taken.
- ❖ All these test and treatment will be done free of cost.



Contraceptive pills and condoms

# Woman's age

- Physical and mental growth of the woman should be complete before she conceives
- Avoid conception before 20 years age of a woman
- Probability of abortion is more if a woman conceives before 20 years of age
- It is likely that such woman may have hypertension/ PIH and be fatal for her life
- Baby may be preterm birth, low birth weight. So chances of neonatal death increase
- Chances of still birth are more
- ❖ Hence such women should use contraceptive pills, injectable or males should use condoms regularly
- ❖ Other women should use contraceptives like Cu-T



Woman's under nutrition or overweight may be at risk for baby

# Ratio of weight and height (BMI)

There is a specific ratio of weight and height; weight of a woman is proportional to her height. This is called as Body Mass Index (BMI)

BMI is calculated as follows

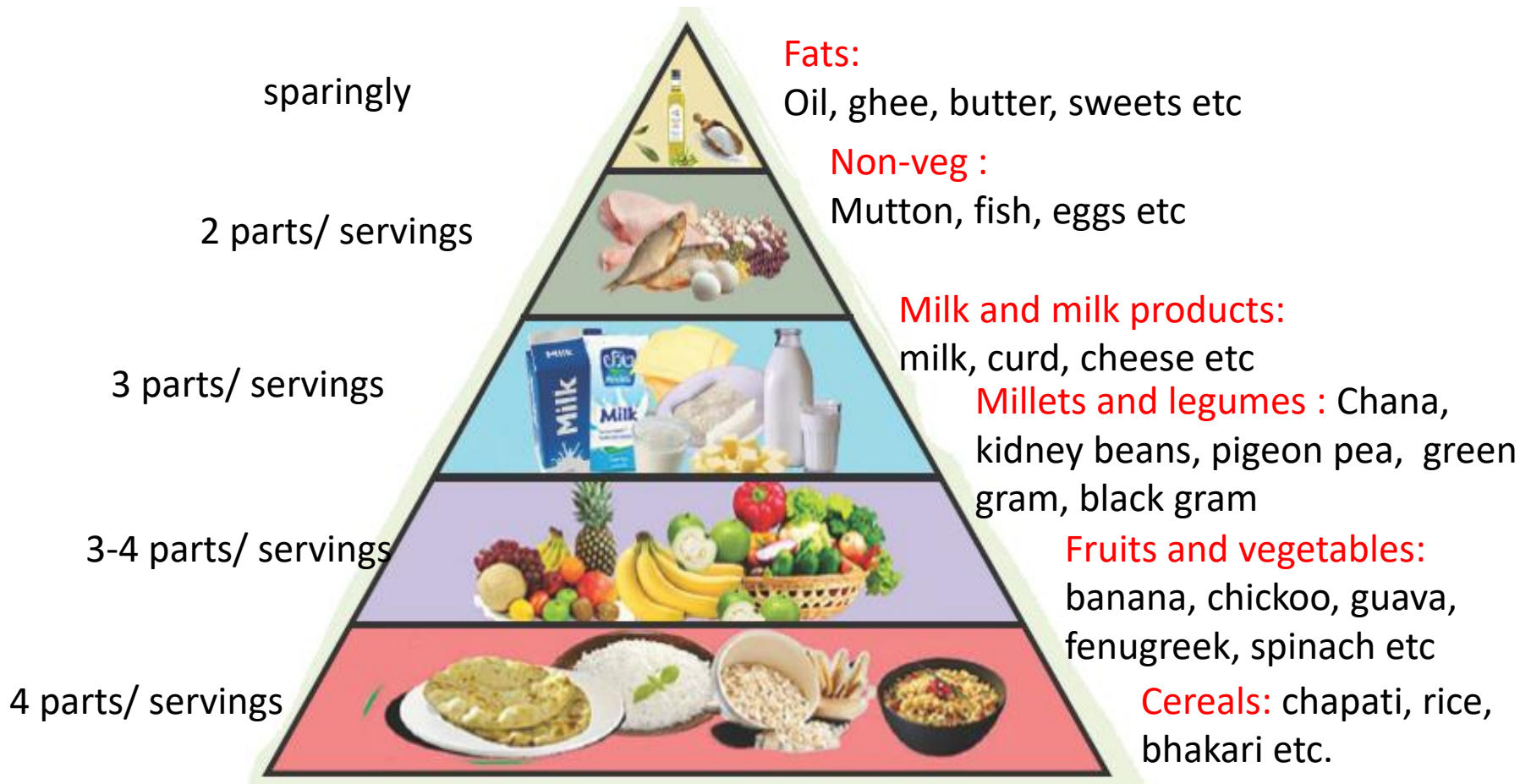
$$\text{Weight in kg.} \div \text{square of height in m.} = \text{BMI}$$

## Meaning of BMI

BMI <18	Low weight
BMI 18.5-24.9	Normal
BMI >25.0	Overweight

- If BMI of woman is low, baby born may have low birth weight and length
- Sometimes preterm baby may be born
- Obviously probability of neonatal death may increase
- Overweight women also have risk of delivering preterm and low birth baby. She may get diabetes, hypertension etc.
- Complications during pregnancy/ delivery or later may occur and be at risk for mother and baby
- Baby born to such mother may also acquire diabetes, hypertension in future





It is necessary that all people have balance diet as per above figure

# Diet

- BMI is based on our diet
- It is necessary that all have balance diet as per the food pyramid
  - Fruits and vegetables should washed properly in salt / plain water and then chopped
    - Use iodized salt for cooking
- Avoid cold drinks like coke, pepsi and eating Maggie, pizza etc
  - Women who have low weight (BMI <18), they should have one meal extra. They should include fish, eggs, chicken, mutton as well as fats like oil, ghee in their diet. Besides, milk, curd, various pulses i.e. dals should be included in their diet in larger quantity. Such women should avoid fasting, or eat different food items stomachful
  - Women who are overweight (BMI >25) should include fruits, leafy vegetables in their diet. Their main diet should be chapati or bhakari of sorghum (jowar) or ragi, dals pulses. Avoid eating sweet, spicy and oily food. Exercises like circumambulation, walking, working in farms should be performed



Take deworming tablets every six months before conception



# Treatment on abdominal worms

- Different bacteria and viruses are present in our body. Few bacteria/ virus cause disease
- Different worms are also present in human intestine
- Generally worms are present in children
- But many times, worms may also be present in women
- Worms absorb nutrients from our body and grow
- Because of these worms, women may show symptoms like weakness due to anaemia
- Hence deworming tablets should be consumed every six months before conception to avoid above symptoms
- Tablets should also be taken even during pregnancy as per mentioned above



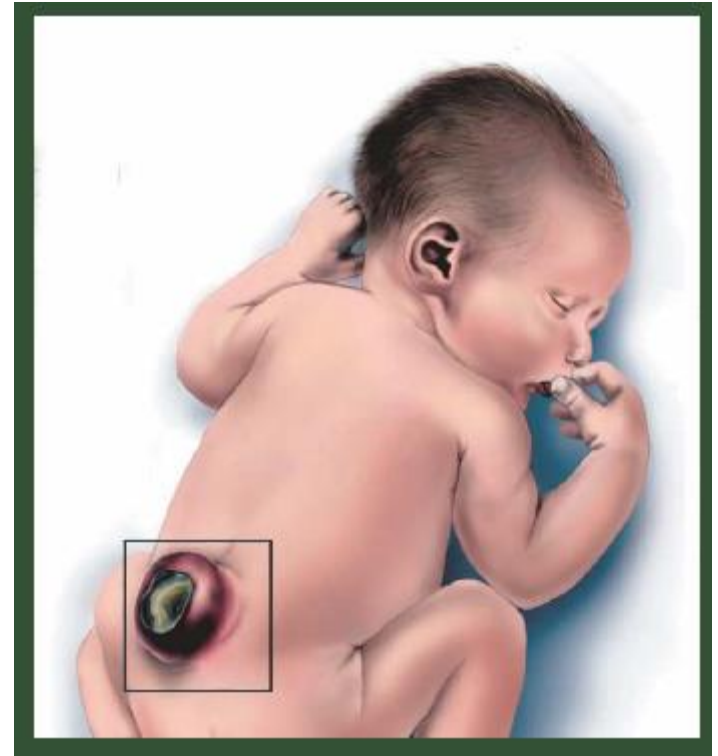
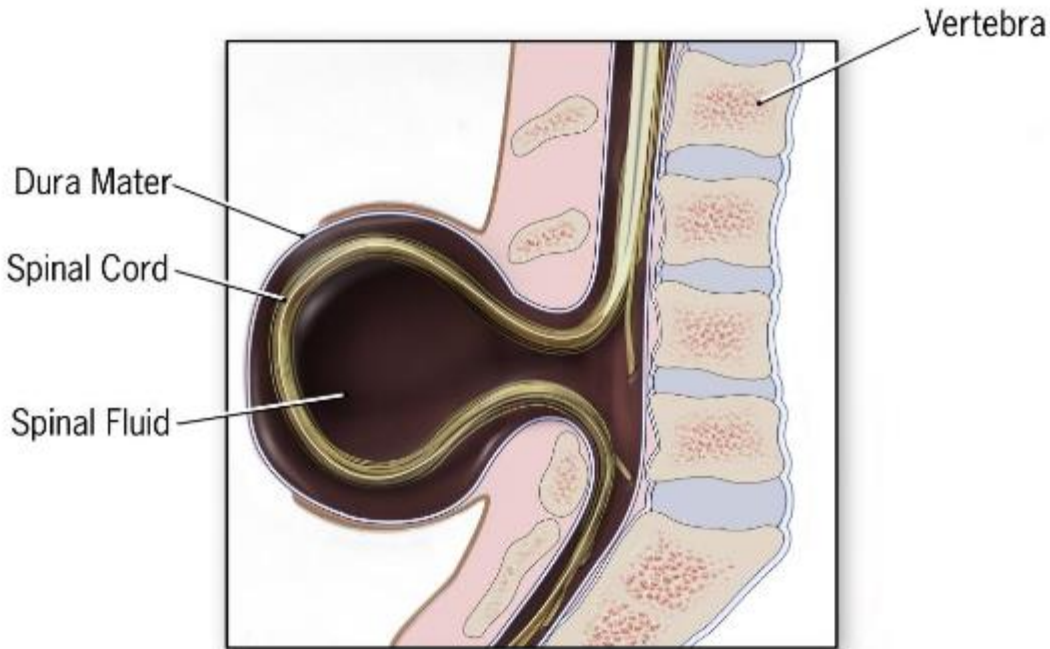
Haemorrhage during pregnancy or postnatal can be fatal in an anaemic woman



# Anaemia

- Hb below 12 gm% is called as anaemia
- Commonest cause of preterm and low birth weight baby is anaemia
- Haemorrhage during pregnancy or postnatal can be fatal in an anaemic woman
- It is easy to prevent or treat anaemia
- Sickle cell anaemia is another type of anaemia, for which treatment as per doctor's consultation is necessary
- Parents should plan pregnancy only when haemoglobin is higher than 12 gm%
- Take deworming tablets once in every six months
- Take iron tablets for minimum 3 months daily after dinner
- Include ragi, leafy vegetables, drumstick leaves vegetable, jaggery, dates, fruits, mutton, chicken
- Use iron utensils like frying pan, griddle, spatula etc. for cooking
- Use lemon, tomato or Amla daily in diet
- Do not consume tea/ coffee after meal. Avoid over-consumption of tea coffee

## Spina Bifida (Open Defect)



Anomalies of brain and spinal cord in infant

# Folic acid

- Folic acid is very essential vitamin for foetal development of brain and spinal cord
- Anomalies of brain and spinal cord may develop due to deficiency of folic acid before conception
- In order to avoid this, women should consume folic acid tables three months before conception and three months during pregnancy in first trimester
- Tablets given to women having anaemia also contains folic acid
- Leafy vegetables, especially spinach should be included in diet. Pulses also contain folic acid in some amount.



It is essential to test blood group before first pregnancy

# Importance of blood group

- Blood group is commonly determined by two systems
- Four groups A, B, AB and O are there in first system
- Two groups Rh positive and negative are there in second system
- It is essential to test blood group before first pregnancy
- It is very essential to test husband's blood group if wife is Rh negative. If husband's blood group of such woman is Rh positive, antibodies from mother pass to foetus and can be fatal to baby
- The risk due to Rh group incompatibility is low during first pregnancy and increases with parity
- Such women should be given injection before and after delivery to reduce the risk to baby





Tobacco causes cancer

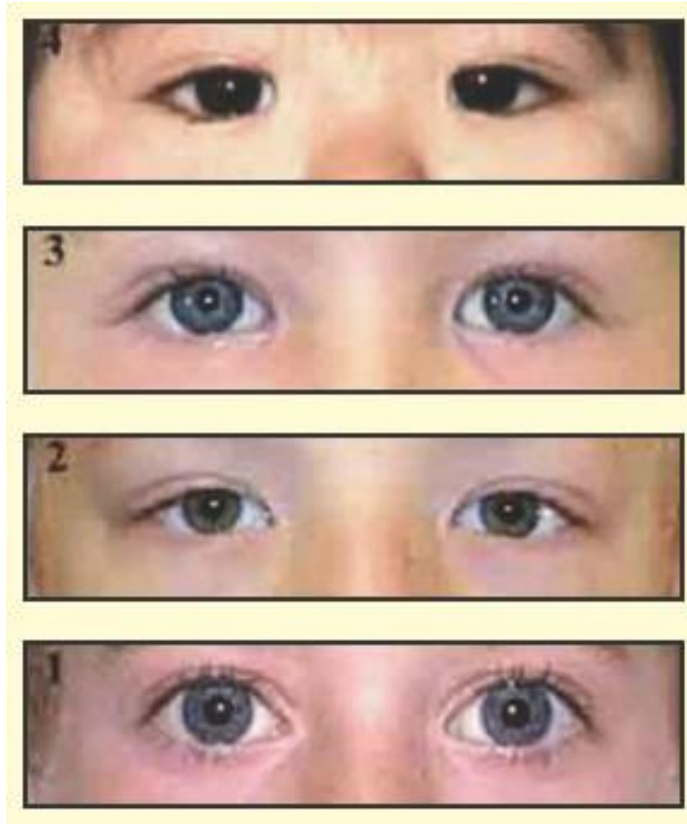


If a woman is addicted to use of tobacco substances, it may have effect on foetus

# Tobacco

- Smoking bidi/ cigarette, chewing tobacco/ gutkha, mishri, snuff are lethal. Many diseases are caused due to them. There are about seven thousand types of lethal chemicals in tobacco substances
- If a woman is addicted to use of tobacco substances in any form, it may have effect on foetus
- Risk like abortion, preterm or low birth weight baby, congenital anomalies or still birth may occur
- It is necessary for a woman to refrain from these addictions before pregnancy

Normal eyes



Normal lips



# Anomalies due to alcohol consumption

# Adverse effects of alcohol consumption

- Alcohol consumption has severe effect on growth of women and her baby
- It may cause problems in women like menstrual irregularity, infertility etc
- It may cause congenital anomalies in baby or affect growth of brain and spinal cord
- Baby may be have less length, low birth weight and small head circumference
- Baby may have cognitive impairment and may affect sight and hearing, or organs like heart and kidney
- Face may be unusual especially eyes and philtrum
- May have behavioural problems (eg hyperactivity, instability etc)
- May have problems in child's school progress or psychological problems (eg mental retardation)
- Hence women should avoid alcohol consumption (Tadi, Madi, country/ branded) before conception



Wife-husband both should undergo investigations and treatment as per the advice of a doctor for a healthy baby

# Sexually transmitted infections

- Sexual diseases are infectious. They may be present in both partners (wife and husband)
- Symptoms like frequent lower abdominal pain, white discharge, groin nodule, burning sensation while urinating, itching etc. may occur
- This may lead to problems like infertility or abortion, ectopic pregnancy (foetus outside uterus) etc.
- Baby may be preterm or low birth weight
- It is more likely that still birth or neonatal death may occur

Hence it is necessary that wife-husband both undergo HIV and VDRL investigations and treatment as per the advice of a doctor





# HEALTHY PARENTS, HEALTHY CHILDREN



Future parents should take care as per the information about preconception services

We can definitely achieve our goal through this

unicef  | for every child