

ADOLESCENT HEALTH

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- **The term adolescence is derived from the Latin word “adolescere” meaning to grow, to mature.**
- **It is considered as a period of transition from childhood to adulthood.**
- **They are no longer children yet not adults. It is characterized by rapid physical growth, significant physical ,emotional, psychological and spiritual changes.**
- **Adolescents constitute 22.8% of population of India as on 1st march 2000.**
- **They are not only in large numbers but are the citizens and workers of tomorrow.**
- **The problems of adolescents are multi- dimensional in nature and require holistic approach.**
- **A large number of adolescents in India are out of school, malnourished, get married early, working in vulnerable situations, and are sexually active.**
- **They are exposed to tobacco or alcohol abuse.**

What is Adolescence?

World Health Organization

- A phase which involves -
 - Progression from appearance of secondary sexual characteristics (puberty) to sexual and reproductive maturity
 - Development of adult mental process and identity
 - Transition from total social-economic dependence to relative independence

Need for Adolescent Care

- *"A world fit for children is one in which ... all children, including adolescents, have ample opportunity to develop their individual capacities in a safe and supportive environment".*

- **Adolescence** : **10 – 19 years**
- **Early Adolescence** : **10 – 13 years**
- **Middle adolescence** : **14 – 16 years**
- **Late adolescence** : **17 – 19 years**
- **Youth** : **15 – 24 years**
- **Young people** : **10 – 24 years**

Challenges in adolescent development and health in INDIA:

- 1. 45% of adolescent girls under nourished**
- 2. 20% of adolescent boys under nourished**
- 3. Early marriage 26% < 15yrs – girls, 54% < 18yrs**
- 4. 20 – 30% adolescent boys sexually active**
- 5. 10% adolescent girls sexually active**
- 6. 59% adolescents know about condoms**
- 7. 49% adolescents know about contraceptives**
- 8. 4.5% drug abuse**
- 9. 50% of all HIV positive new infections are in the age group of 10 – 25yrs**
- 10. Adolescent abortion 1 – 4.4millions**

- **Early adolescence(10 -13yrs):**
Spurt of growth of development of secondary sex.
- **Middle adolescence(14-16yrs):**
Separate identity from parents, new relationship to peer groups, with opposite sex and desire for experimentation.
- **Late adolescence(17-19yrs):**
Distinct identity, well formed opinion and ideas

The following changes are taking place during adolescent period:

- a) Biological changes – onset of puberty**
- b) Cognitive changes – emergence of more advanced cognitive abilities**
- c) Emotional changes – self image, intimacy, relation with adults and peers group**
- d) Social changes – transition into new roles in the society**

Why Adolescents are Important?

- They are a demographic force.
- They are an economic force.
- They are the future health.
- They have a right to participate.

Am I Normal ?

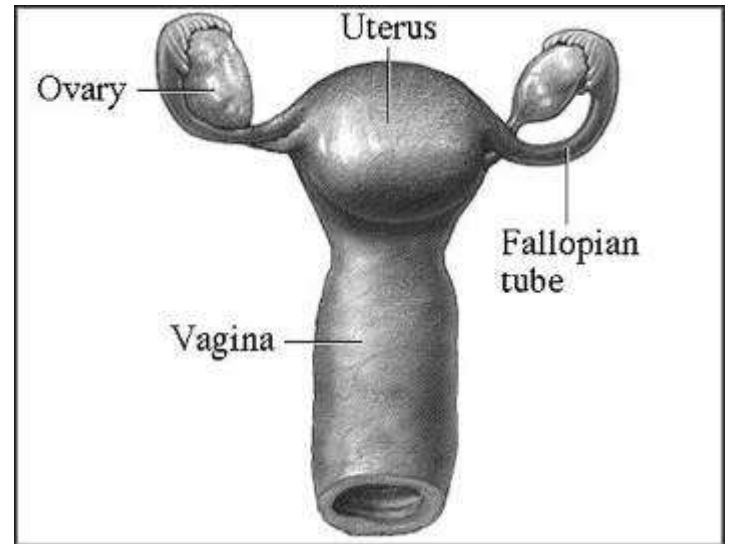
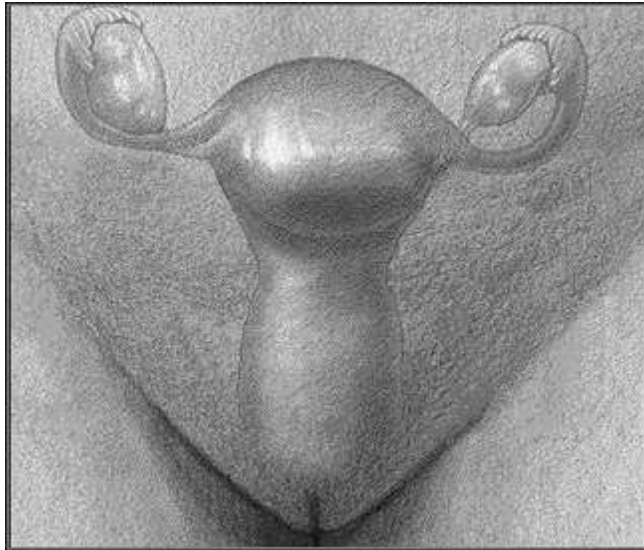
- Rapid growth. . .Cause of Concern!
- Adolescents have a fundamental human right to accurate and comprehensive reproductive and sexual health information.



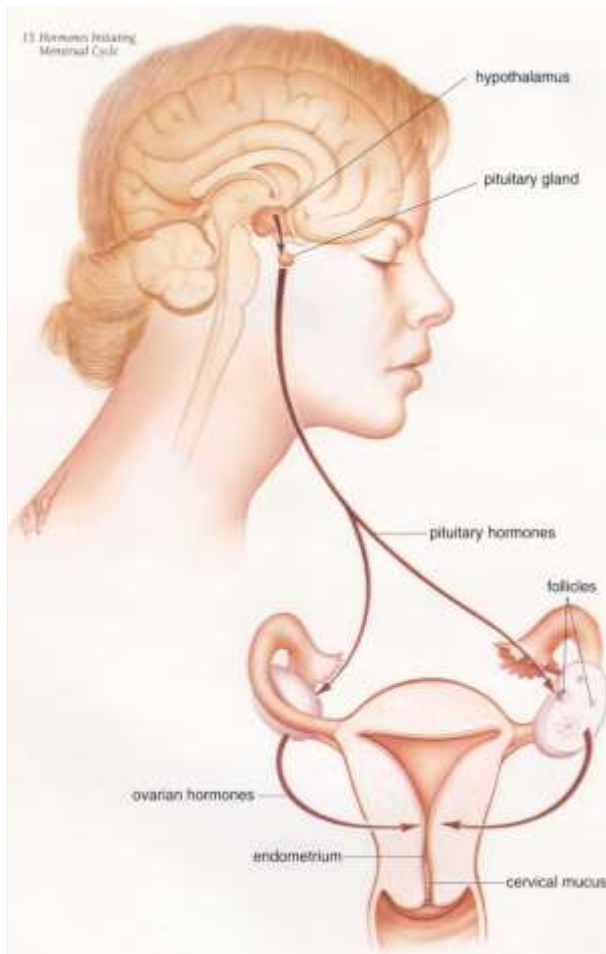
Reproductive system

- Different in Boys & Girls
- Influenced by HPOA (Hypo Thalamo Pituitary Ovarian Axis)
- Produces different hormones
 - Oestrogen, Progesterone in female
 - Testosterone in Male

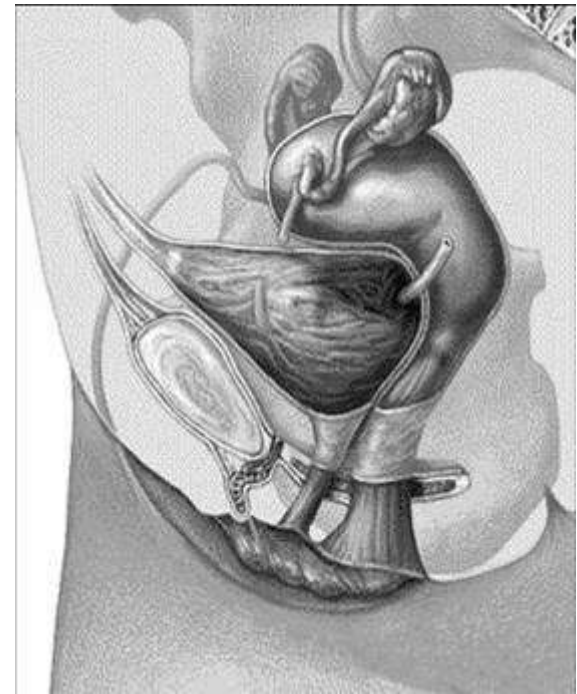
Female Reproductive System



Getting periods... how?



Side view of female body



- **MOST NOTICEABLE CHANGE**
- Shedding of inner wall of uterus every month (Usually) manifested as bleeding per vaginam
- Duration : 3 to 5 days, Interval 25-35 days
- Count cycle from 1st day of bleeding.
- Blood loss : 60-80 ml/cycle
- Associated complaints Pain/backache/acne

- Clean pad/cloth, tampons & its disposal
- Do not use wet clothes, it causes infection
- Change pads frequently
- Cotton under wears (avoid synthetic fabric/nylon)
- Wash yourself (private parts) properly and frequently every time you go to toilet
- Regular bath
- Skin & Hair care

Something about boys too...

- They do change/ little late than girls
- height, hair, voice
- Testosterone → male hormone
- Emotional changes

Health implications of sexual dev.

- Reproductive tract infections
- Sexually transmitted infections
- Pregnancy
- Sexual abuse
- Early sexual involvement

Consequences of unsafe sexual behaviour

- Unwanted pregnancies.
- Unsafe abortions → death.
- STI like HIV and AIDS.
- RTIs leading to chronic pelvic pain, infertility.
- Cervical cancer.

ADOLESCENT HEALTH PROBLEMS

- 1. Anorexia nervosa**
- 2. Obesity & overweight**
- 3. Adolescent pregnancy**
- 4. Micronutrient deficiency**
- 5. Emotional problems**
- 6. Behavioural problems**
- 7. Substance abuse & injuries**
- 8. Sexually transmitted infection**
- 9. Thinking and studying problems**
- 10. Identity problems**

Say YES to;

- Milk & Milk products (Curd, Paneer)
- Green vegetables, Fruits, Cereals
- Soups, Juices
- Regular meals
- Balanced Diet



Teenage & Diet / Obesity

- Pizza ~ Burger ~ Sandwich
- Aerated drinks / Preserved Juices
- Coffee / Cocktails / Mocktails
- French Fries
- Vada-pav
- What more do you like?!
- **AVOID Food with FAT**



Slim v/s fit

- Do not starve
- NO crash diet, seek professional help for weight loss (Not to get carried away with advertisements!)
- FITNESS is more important than looking slim!
- YOU CAN avoid nutritional deficiency by regular, balanced diet intake

Anaemia – Avoid it!

- Anaemia is the state in which there is a decreased production of red blood cells or a decreased concentration of haemoglobin in the cells. This results in decreased oxygen carrying capacity.
- You can know your hemoglobin level by simple blood test.

Incidence & Consequences

- 7 out of 10 girls sitting may be anaemic during teen age years. It is that common!
- **Do you suffer from any of the following?**
 - Tiredness
 - Lack of concentration (Poor performance at studies)
 - Hair Loss
 - Irritability

IT CAN BE DUE TO ANEMIA

Why Anemia?

- Poor dietary habits?
- Are you losing excess blood from your body?
 - Passing clots/menses for >7days.
 - Black stools/red urine in some diseases.
 - Anal itching/postprandial hurry could be worms.
- Some diseases may also cause anaemia.

Cure it urgently.

Anaemia ~ How to deal with it?

- Repeated Haemoglobin measurements
- Diet rich in iron containing food



- Iron supplements to make up for deficit (as advised by your doctor)

Iron Rich sources



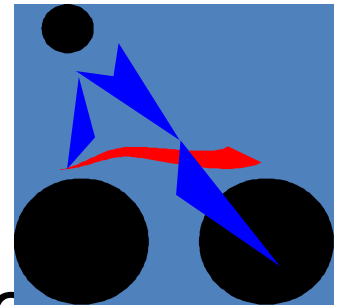
Healthy food habits

- Never skip meals or go for crash dieting.
- Have proper breakfast and an early dinner.
- Limit fast food intake to a minimum.
- Have at least one fruit a day.
- Have salads often and vegetables daily.

Exercise & Physical Activity

Does it really HELP? YES,

- Improves your strength & endurance.
- Bones & muscles becomes more healthy.
- Avoids weight gain.
- Reduces anxiety & stress.
- Increases self esteem, confidence.



Exercise – Make it fun

- Choose an outdoor game as hobby e.g. badminton, Football, Volley Ball etc.
- Always get involved in school sports.
- Don't skip dancing classes for tuitions.
- Cycling, Swimming, Jogging, Brisk Walking helps you to maintain fitness.

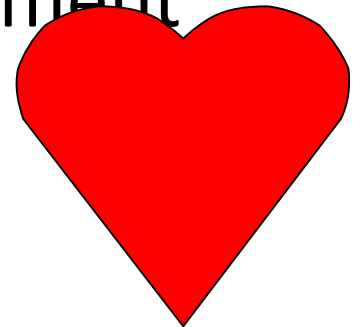
Enjoy outdoor games



EMOTIONAL CHANGES

- Transition from childhood to adult
- Attraction
- Fantasies
- Mood changes...irresponsible, stubborn
- Search for identity and sexual development
create sense of crisis

It's natural & normal!



Life Style

- Regular.
- Simple.
- Optimistic.
- Helping hand, interdependence.
- Getting involved in humanitarian activities.
- Respecting social values & spirituality

Smoking, drinking, drugs

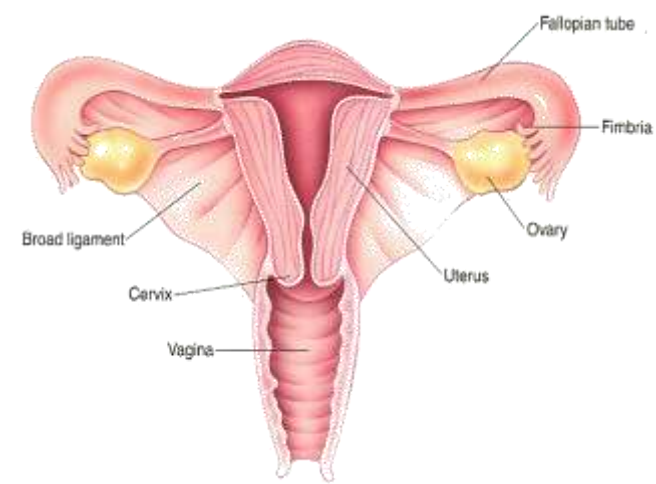
- Smoking is an evil which is best avoided it can cause cancers, heart disease, early death.
- Avoid alcohol intake.
- Drugs are like taking poison – stay away.



Prayer and Meditation, Reading the Word of God

- Spiritual orientation gives us the power to resist the negative influences in society.
- Today's youth open to many temptations.
- The appropriate place for the expression of the sexual impulse is marriage.

Two Important vaccines for young girls



Vaccine to prevent

- **Rubella infection** (thereby avoiding birth of a child with defect)
- Cervical cancer (Cervix is the mouth of uterus)
Its cancer prevalence is increasing & is the top most killer for women.



**Have YOU ever seen
a child with defect?
WHY it happens???**

Rubella is one of causative factors

Rubella - German Measles is caused by RNA virus

- Worldwide distribution

Spreads in air by the coughing & sneezing of an infected person, Humans are apparently the only HOST

- Susceptible group: Children, Young, Adults

Hallmark of this infection is skin rash

SEARO estimates....

- 10,00,000 + birth per year..having congenital defect **(INDIA)**
 - **Blindness**
 - **Heart defects**
 - **Mental retardation**
 - **Deafness**
- **21% due to Rubella**



Not only birth defects;

- Rubella infection can cause recurrent pregnancy loss (multiple abortions)
- **ALL such dangerous effects to girl/woman/unborn CAN BE PREVENTED with vaccine (Recommended in > 78 countries)**
 - Subcutaneous (IM may cause more pain)
 - Antibodies starts appearing in the first week itself
 - Provides long acting immunity (18-20 years)

Cancer Cervix



The Big BOSS

From
Smile to
Agony



Cancer vaccine for Young Girls

- **HPV Vaccine – to fight against virus called Human Papilloma Virus**
- HPV infection usually occurs due to sexual exposure & contribute 99.7% of total cases of cancer of cervix (lower most part of uterus)¹
- **In India: ~27% deaths worldwide is due to Cancer cervix**
- Higher prevalence & death than any other cancer in India amongst the women which is on the increase

HPV Vaccine is available
to fight against cervical cancer

- **Two vaccines** have been licensed globally for adolescent girls aged 9-26 yrs
- Quadrivalent vaccine.
- Bivalent vaccine.

- Quadrivalent vaccine

**Prevention of: HPV
related
Cancer Cervix
Vulvar & Vaginal
cancers
Ano -Genital warts
Recurrent Respiratory
Papilomatosi**

- Bivalent vaccine

**Prevention of HPV
related
Cancer Cervix**

HIV

H = **Human** (Because this virus can infect human beings only)

I = **Immunodeficiency** (Because the virus causes deficiency of the human immune system to work)

V = **Virus** (Infectious agent that replicates itself only with a living cell)

There are two types of HIV virus: H 1 & H 2

H 1 is more common in India

H 2 type is more common in Africa

The virus (HIV) can enter human body

Via...

- Blood
- Injection Syringe
- Sexual activity



Once it enters human body,

it attacks CD4 cells in blood and immunity is suppressed → Severe illness (AIDS)

WAY OUT

- The key to combat AIDS lies in evolving an effective & preventive strategy while simultaneously providing Rx and setting up rehabilitation centers.
- **Health education to college / school students.**
- Male / Female condom promotion & newer microbicides.



How HIV is not transmitted?

- Staying in one house/playing together
- Studying in school together
- Working together at office / factory
- Hugging / Eating together / Hand shaking
- Using common clothes / attires
- Using public toilets
- Using common swimming pool
- Mosquito bite/other insect bite
- By air via respiration

Accident and Violence

- Deaths and Injuries are more common in them
- Unintentional Injuries is the leading cause of Death in many countries
- Vulnerable both as victims and perpetrators
- Violence with in home is usually not treated seriously.

Sexual Abuse

- For millions – sex is linked with – cruelty, violence and abuse – family members or adults with privileged access.
- Women are conditioned to be submissive to men – thus early marriage, birth spacing, unprotected sex or unfaithful partner.
- Much sexual abuse takes place in home and is never reported
- Homeless –street adolescents are more vulnerable
- Young women may trade sex
- Increase in world trade sexual exploitation of young people – “sex Tourism”
- UNICEF estimates – 1 million adolescents are recruited in commercial sex trade

Depression and suicide

- Common with Low self esteem
- They feel they have no future and are useless
- Reduces the quality of life
- Likely to take risk with own health
- Depression can lead to suicide
- 90,000 young people commit suicide every

Eating Disorder

- Obesity and eating disorders exist along with malnutrition
- From early age adolescents are under pressure to be ultra thin – impact of media
- Bulimia and anorexia can permanently damage physical and mental health.
- Obesity – if failed to deal in time may lead to serious health problems.

Why pay attention to Adolescent Health?

- **To reduce death and disease in adolescents**
- **To reduce the burden of disease in later life**
- **To invest in health — today and tomorrow**
- **To deliver on human rights**
- **To protect human capital**

Reasons for adolescent reluctant to seek help

- **FEAR**
- **UNCOMFORTABLE WITH OPPOSITE HEALTH WORKER**
- **POOR QUALITY PERCEPTION**
- **LACK OF PRIVACY**
- **CONFIDENTIALITY**
- **CUMBERSOME PROCEDURE**
- **LONG WAITING TIME**
- **PARENTAL CONSENT**
- **OPERATIONAL BARRIER**
- **LACK OF INFORMATION**
- **FEELING OF DISCOMFORT**

ADOLESCENT FRIENDLY HEALTH CENTER SERVICES

- **Reproductive Health services**
- **Sexual & Reproductive health education**
- **Contraception**
- **Pregnancy testing and option**
- **MTP**
- **STD/HIV Screening counselling and treatment**
- **Prenatal & postpartum care**
- **Well baby care**
- **Nutritional services**
- **Growth & development monitoring**
- **Anticipatory guidance about substance abuse and other risk taking behaviour**
- **Counseling for life skill development**
- **Screening for various disorders**

THANKS